ORDER NO. HAD8603408C0
A2

Service Manual

Stereo Integrated Amplifier

Amplifier

SU-V60

Color

(K)	Black Type
(S)	Silver Type

Color	Area
(K)	[M] ..... U.S.A.
(K)	[MC] .... Canada
(K)(S)	[E] ..... Continental Europe
(K)(S)	[EH] .... Holland
(K)(S)	[EB] .... Belgium
(K)(S)	[EF] .... France
(K)(S)	[EK] .... United Kingdom
(K)(S)	[EGA] ... F.R. Germany
(K)(S)	[Ei] ..... Italy
(K)(S)	[XL] .... Australia
(K)(S)	[XA] .... Asia, Latin America, Middle Near East, Africa & Oceania

SPECIFICATIONS

(* Refer to next page, specification of DIN 45 500)

(IHF '78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output
20 Hz~20 kHz both channels driven
0.002% total harmonic distortion
90W per channel (8 ohms)

1 kHz continuous power output
both channels driven
0.0009% total harmonic distortion
90W per channel (8 ohms)
0.005% total harmonic distortion
100W per channel (4 ohms)

Dynamic headroom 1 dB (8 ohms), 1.4 dB (4 ohms)

Headphones output impedance (330 ohms)

Total harmonic distortion
rated power at 20 Hz~20 kHz 0.002% (8 ohms)
rated power at 1 kHz 0.0009% (8 ohms), 0.005% (4 ohms)
half power at 20 Hz~20 kHz 0.002% (8 ohms)
half power at 1 kHz 0.0008% (8 ohms), 0.002% (4 ohms)

SMPTE intermodulation distortion 0.005% (8 ohms)

Frequency response
PHONO RIAA standard curve ±0.8 dB
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 +0 dB, −0.2 dB (20 Hz~ 20 kHz), 5 Hz~120 kHz, −3 dB

Input sensitivity
PHONO MM 0.25 mV (2.5 mV, IHF '66)
MC 17 μV (170 μV, IHF '66)
TUNER, CD, AV/AUX 15 mV (150 mV, IHF '66)
TAPE 1/DA TAPE, TAPE 2

Maximum input voltage
PHONO MM 160 mV
MC 12 mV

S/N (IHF, A)
PHONO MM 76 dB (86 dB, IHF '66)
MC 72 dB (68 dB, IHF '66) (250 μV)
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 80 dB (100 dB, IHF '66)

Input impedance
PHONO MM 47 kilohms
MC 220 ohms
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 22 kilohms

Tone controls
BASS 50 Hz, +10 dB~−10 dB
TREBLE 20 kHz, +10 dB~−10 dB

Subsonic filter 20 Hz, −6 dB/oct.

Loudness control (volume at −30 dB) 50 Hz, +9 dB

Output voltage
TAPE 1, 2 REC OUT 150 mV

Low frequency damping factor 60 (8 ohms), 30 (4 ohms)

Load impedance
MAIN or REMOTE 4~16 ohms
MAIN and REMOTE 8~16 ohms

■ GENERAL

Power consumption 380W, 440 VA
Power supply AC 120V, 60 Hz
Dimensions (W×H×D) 430 × 116 × 340 mm (16-15/16" × 4-9/16" × 13-6/16")
Weight 8.5 kg (18.8 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Specifications are subject to chnge without notice for further improvement.

Technics

Matsushita Service Company
50 Meadowland Parkway,
Secaucus, New Jersey 07094

Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.
Ave. 65 De Infanteria, KM 9.7
Victoria, Industrial Park
Carolina, Puerto Rico 00630

Panasonic Hawaii, Inc.
91-238 Kauhi St., Ewa Beach
P.O. Box. 774
Honolulu, Hawaii 96808-0774

Matsushita Electric of Canada Limited
5770 Ambler Drive, Mississauga,
Ontario, L4W 2T3

Matsushita Electric Trading Co., Ltd:
P.O. Box 288, Central Osaka Japan

SU-V60

■ SPECIFICATIONS (DIN 45 500)

■ AMPLIFIER SECTION

20 Hz~20 kHz continuous power output
both channels driven 2 × 90W (8Ω)
1 kHz continuous power output
both channels driven 2 × 120W (4Ω)
Total harmonic distortion
rated power at 20 Hz~20 kHz 0.002% (8Ω)
rated power at 1 kHz 0.005% (4Ω), 0.0009% (8Ω)
half power at 20 Hz~20 kHz 0.002% (8Ω)
half power at 1 kHz 0.002% (4Ω), 0.0008% (8Ω)

Intermodulation distortion
rated power at 250 Hz: 8 kHz=4:1, 8Ω 0.005%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω 0.005%

Power bandwidth
both channels driven, −3 dB 5 Hz~60 kHz (8Ω, 0.03%)

Residual hum and noise 0.8 mV

Damping factor 30 (4Ω), 60 (8Ω)

Input sensitivity and impedance
PHONO MM 2.5 mV/47kΩ
MC 170 μV/220Ω
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 150 mV/22kΩ

PHONO maximum input voltage (1 kHz, RMS)
MM 160 mV
MC 12 mV

S/N
rated power (4Ω)
PHONO MM 78 dB (86 dB, IHF, A)
MC 65 dB (68 dB, IHF, A)
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 92 dB (IHF, A: 100 dB)
−26 dB power (4Ω)
PHONO MM 69 dB
MC 65 dB
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 70 dB
50 mW power (4Ω)
PHONO MM 62 dB
MC 61 dB
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 63 dB

Frequency response
PHONO RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
TUNER, CD, AV/AUX, TAPE 1/DA TAPE
TAPE 2 5 Hz~120 kHz (−3 dB), +0, −0,2 dB (20 Hz~20 kHz)

Tone controls
BASS 50 Hz, +10 dB~−10 dB
TREBLE 20 kHz, +10 dB~−10 dB

Subsonic filter 20 Hz, −6 dB/oct.

Loudness control (volume at −30 dB) 50 Hz, +9 dB

Output voltage and impedance
TAPE, 1, 2 REC OUT 150 mV

Channel balance, AUX 250 Hz~6,300 Hz ±1 dB

Channel separation, AUX 1 kHz 50 dB

Headphones output level and impedance 600 mV/330Ω

Load impedance
MAIN or REMOTE 4Ω~16Ω
MAIN and REMOTE 8Ω~16Ω

■ GENERAL

Power consumption 560W
Power supply
For United Kingdom and Australia AC 50 Hz/60 Hz, 240V
For continental Europe AC 50 Hz/60 Hz, 220V
For others AC 50 Hz/60 Hz, 110V/127V/220V/240V
Dimensions (W×H×D) 430 × 116 × 340 mm (16-15/16" × 4-9/16" × 13-6/16")
Weight 8.5 kg (18.8 lb.)

Notes:
1. Specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

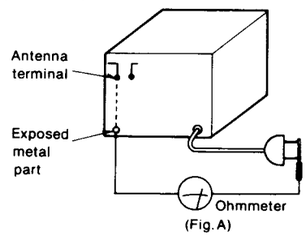
■ SAFETY PRECAUTION (This "safety precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

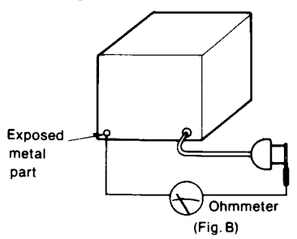
• INSULATION RESISTANCE TEST

1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)
Resistance = 3MΩ—5.2MΩ



(Fig. B)
Resistance = Approx ∞

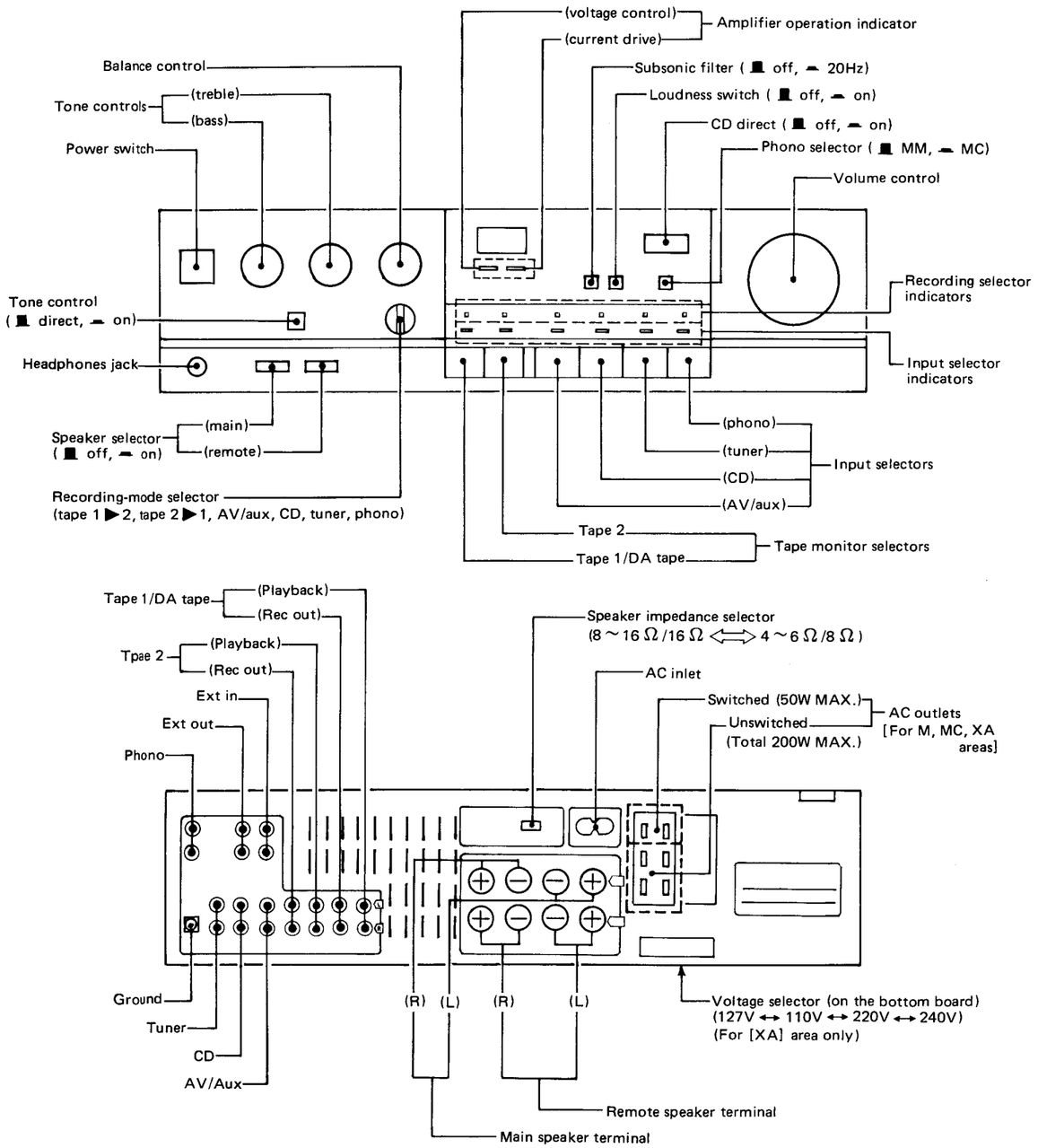
4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

SU-V60

■ CONTENTS

	Page
SAFETY PRECAUTION	2
LOCATION OF CONTROLS	3
PROTECTION CIRCUITRY	4
BEFORE REPAIR AND ADJUSTMENT	4
DISASSEMBLY INSTRUCTIONS	5, 6
MEASUREMENTS AND ADJUSTMENTS	6
BLOCK DIAGRAM	7, 8
PRINTED CIRCUIT BOARDS	9 ~ 14
CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM	15 ~ 16
SCHEMATIC DIAGRAM	17 ~ 21
REPLACEMENT PARTS LIST	22 ~ 23
EXPLODED VIEW	24, 25

■ LOCATION OF CONTROLS



- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the circuit diagram and replacement parts list.
- * [M] [MC] area is provided with AC outlets.
- * 120V (60Hz) for U.S.A.
- * [XA] area is provided with voltage selector and AC outlets.
- * 240V (50/60Hz) for Australia and United Kingdom.
- * 220V (50/60Hz) for Continental Europe.
- * 127V/110V/220V/240V (50/60Hz) for other [XA] area.
- * Phono input capacitance is about 150pF.

Suggestions

- If noise is very annoying while listening to an FM or AM broadcast, switch OFF the video disc player, compact-disc player and turntable.
- Switch OFF the video disc player power if noise is excessive while listening to an audio tape, compact disc or regular phono disc.

Notes:

- To record sounds from a compact disc, press the input selector marked "CD". The compact-disc-direct switch is for listening only; it cannot be used to select the compact disc as a recording source.

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is switched ON.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted" , or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

■ BEFORE REPAIR AND ADJUSTMENT

(1) Turn off the power supply. Using a 10Ω, 5W resistor, shortcircuit both ends of power supply capacitors (C503, C504, 6800μF) in order to discharge the voltage.

(2) Before turning on the power switch of the set . . .

A. Connect the voltage controller to the primary side.
B. Connect the AC ampere meter to the primary side or connect the DC voltage metar to the "±B" circuit of the secondary side.
C. Turn the VR of ICQ (VR401 and VR402) to minimum (counterclockwise).
D. After setting the output to zero of the voltage contoller, turn on the power switch of the set. And increase the output of voltage controller gradually. Then, check carefully whether the current value of primary side become more than followings value or whether the DC voltage of secondary side is increasing slowly.
E. If the value of current is increasing unusually or the DC voltage is not increasing, lower the output level of voltage contoller immediately.
F. Check the transistors of voltage amplifier and current amplifier IC501.
G. After repairing, adjust the ICQ.

- The current value of the primary side at no signal. (Confirm the power supply voltage of each area and provided voltage of the set.)

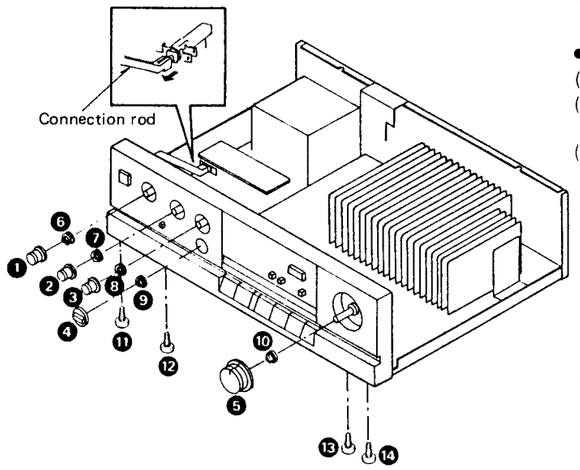
Power supply voltage	AC110V	AC120V	AC127V	AC220V	AC240V
Consumed current 50/60Hz	280 ~ 560mA	260 ~ 520mA	260 ~ 520mA	140 ~ 280mA	130 ~ 260mA

■ DISASSEMBLY INSTRUCTIONS

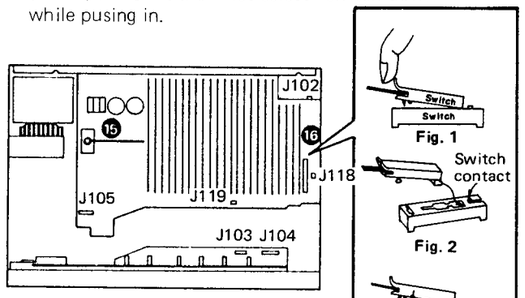
Ref. No. 1 — **How to remove the front panel**

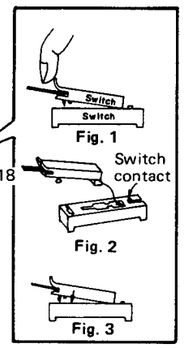
Procedure 1

1. Remove the connection rod.
2. Remove the 5 knobs (❶ ~ ❺).
3. Remove the 5 nuts (❻ ~ ❿).
4. Remove the 4 screws (⓫ ~ ⓮).
5. Remove the connector (J102 ~ J105, J118, J119).
6. Remove the 1 lock pin (⓯).
7. Remove the "Rec-select" switch (⓰).



- **How to remove the "Rec-select" switch**
  Pusing the rec switch, shift it up as in Fig. 1.
- **How to fit the rec switch**
(1) Shift the switch contact inside.
(2) Turn the "Rec-select" switch (selector knob) counterclockwise.
(3) Let the "Rec-select" switch claw change with the switch, and shift the "Rec-select" switch down while pusing in.

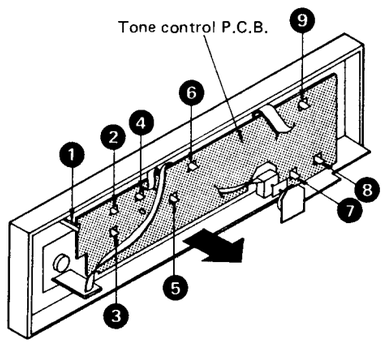


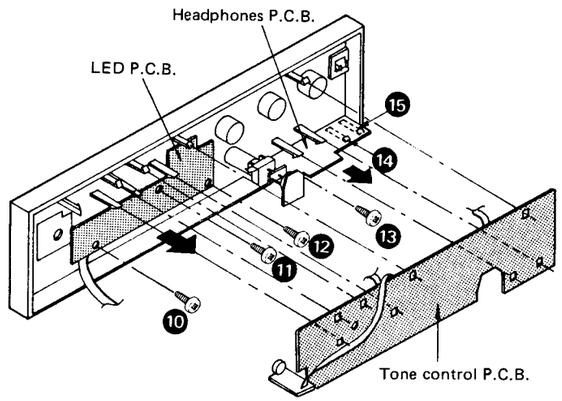


Ref. No. 2 — **How to remove the P.C.B.**

Procedure 1 → 2

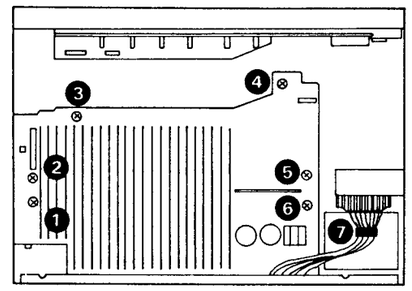
1. Push the 9 tabs (❶ ~ ❾).
2. Remove the tone control P.C.B.
3. Remove the 3 screws (❿ ~ ⓬).
4. Remove the LED P.C.B.
5. Remove the 1 screw (⓭).
6. Push the 2 tabs (⓮ , ⓯).
7. Remove the headphones P.C.B.

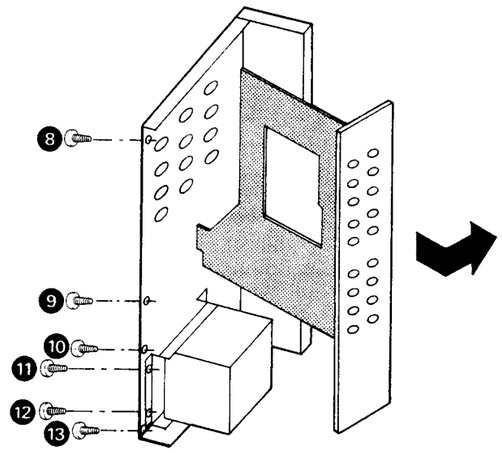




Ref. No. 3 — **How to remove the main P.C.B.**

1. Remove the 6 screws (❶ ~ ❻).
2. Cut the clamper (❼).
3. Remove the 6 screws (❽ ~ ⓭).
4. Remove the main P.C.B.





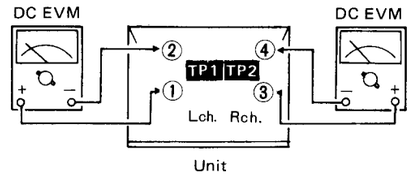
■ MEASUREMENTS AND ADJUSTMENTS

Control positions and equipment used.

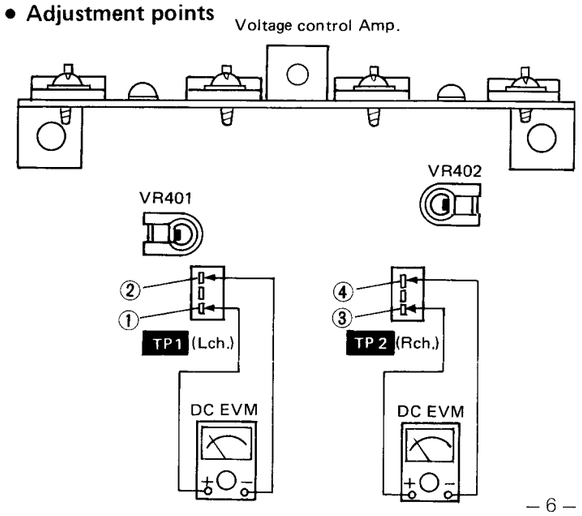
- Volume knob . . . . . ∞ (Minimum)
- Main speaker selector . . . . . off
- Remote speaker selector . . . . . off
- Speaker impedance switch . . . . . 8Ω ~ 16Ω
- DC electronic voltmeter (EVM)

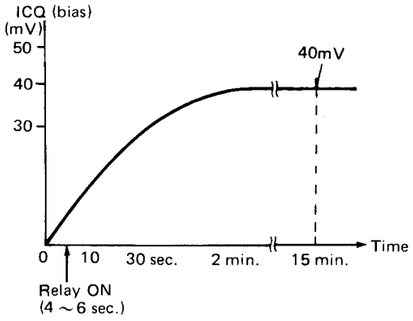
IDLING (ICQ) ADJUSTMENT

1. Test equipment connection is shown in figure. Connect the DC EVM. on both channels.)
2. Turn the ICQ control volume (**VR401, VR402**) counter-clockwise.
3. Turn ON the set when it is cold, and 15 sec. later, adjust **VR401** and **VR402** so that the voltage is **20mV.** Also, check that the voltage is **18 – 47mV** (standard: **40mV**) after lapse of **10 – 15 minutes.** (Below **50mV** after lapse of **60 min.**).



- **Adjustment points**

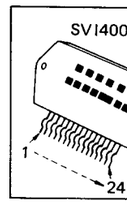




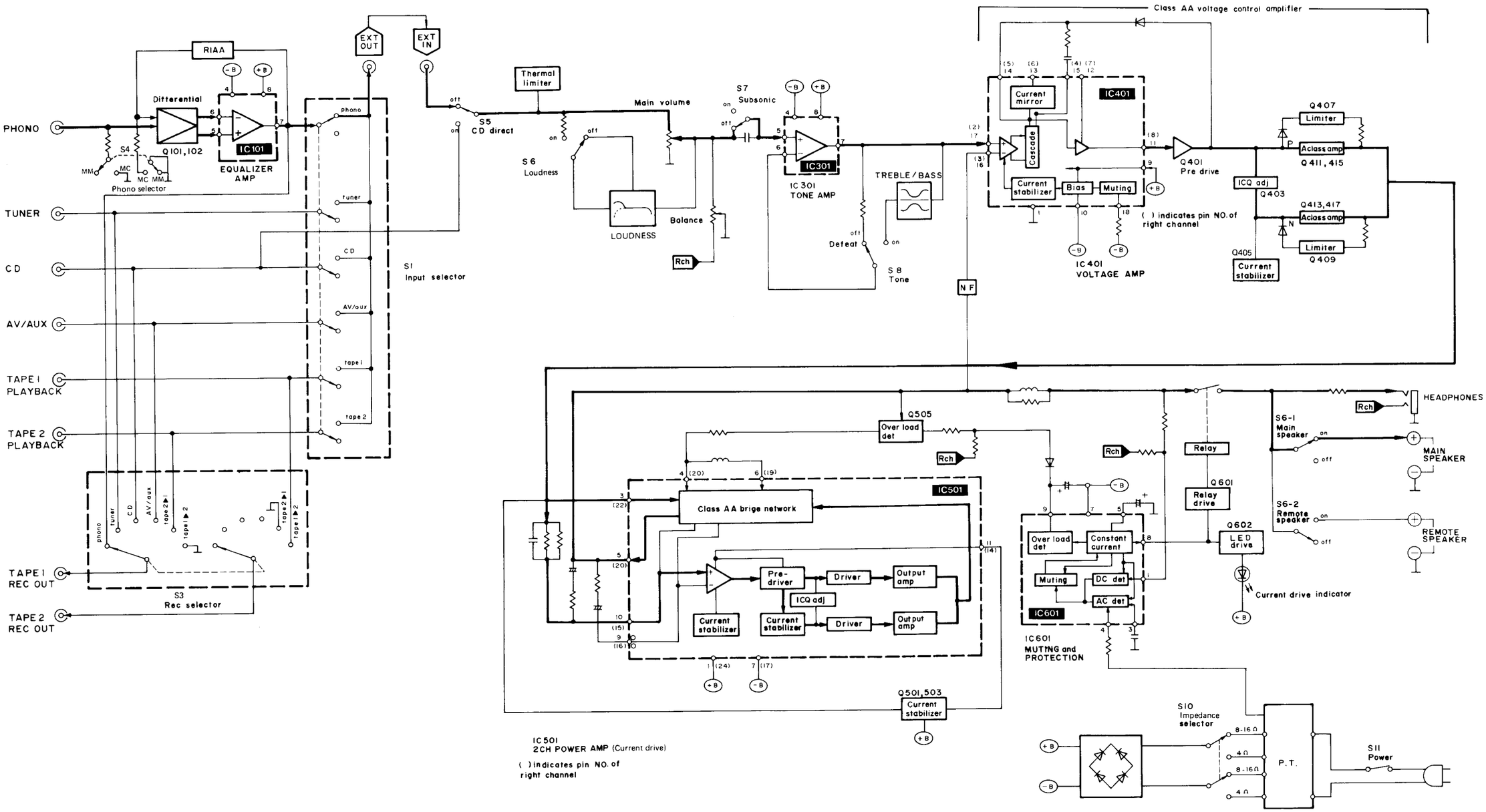
■ BLOC

PHONO
TUNER
CD
AV/AUX
TAPE 1 PLAYBACK
TAPE 2 PLAYBACK
TAPE 1 REC OUT
TAPE 2 REC OUT

- **Terminal**



■ BLOCK DIAGRAM



8Ω ~ 16Ω

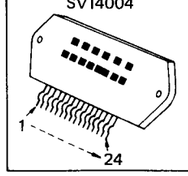
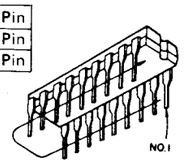
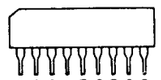
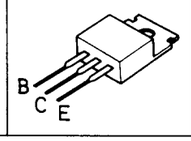
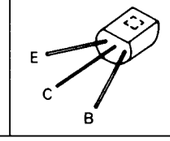
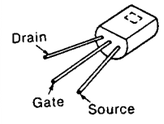
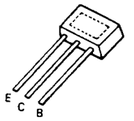
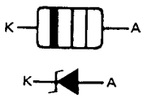
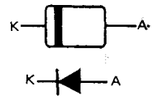
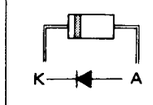
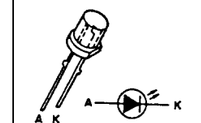
DC EVM

40mV

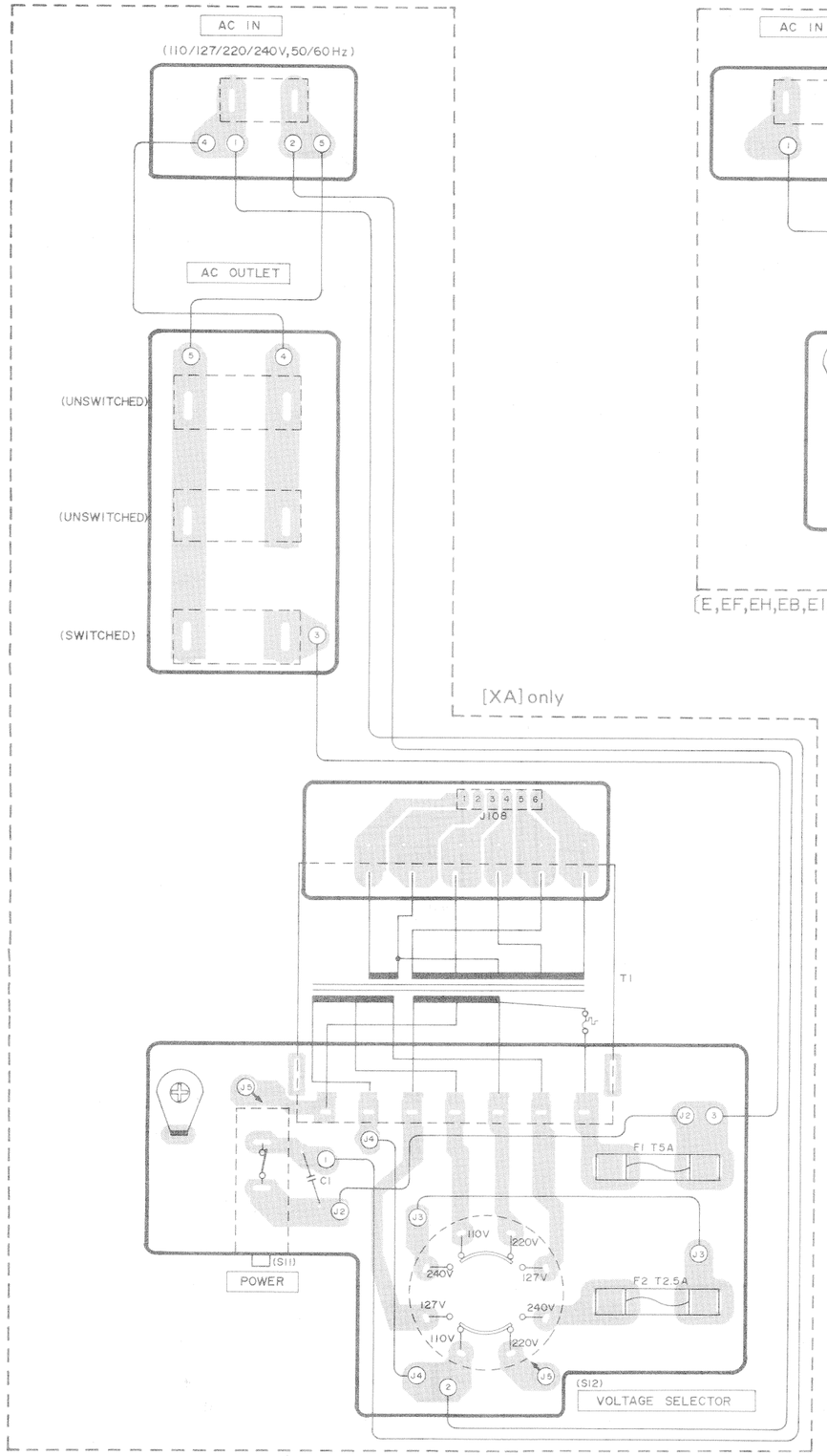
Time

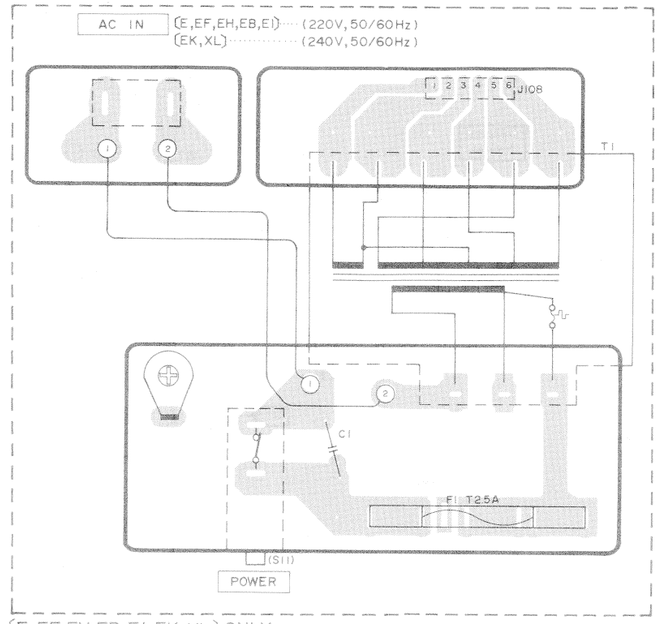
15 min.

- **Terminal guide of IC, transistor and diode**

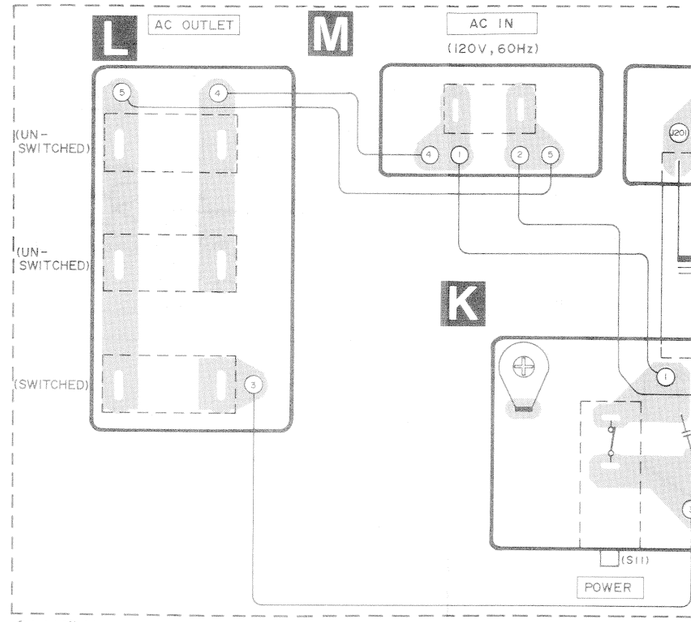
SVI4004		AN7073	2SC3298, 2SC2592 2SA1306, 2SA1112	2SC1685, 2SA1123 2SA992, 2SC2631	2SK170 2SK301	2SA1309 2SC3311	MA4033M MA4120M MA4180M	MA185, MA165 MA167, MA29WA	SVDS10VB20 SVDSR1K2	LN463YCPP LN863RCPP
	M5218P 8 Pin M5219P 8 Pin AN7062N 18 Pin 									

■ PRINTED CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM

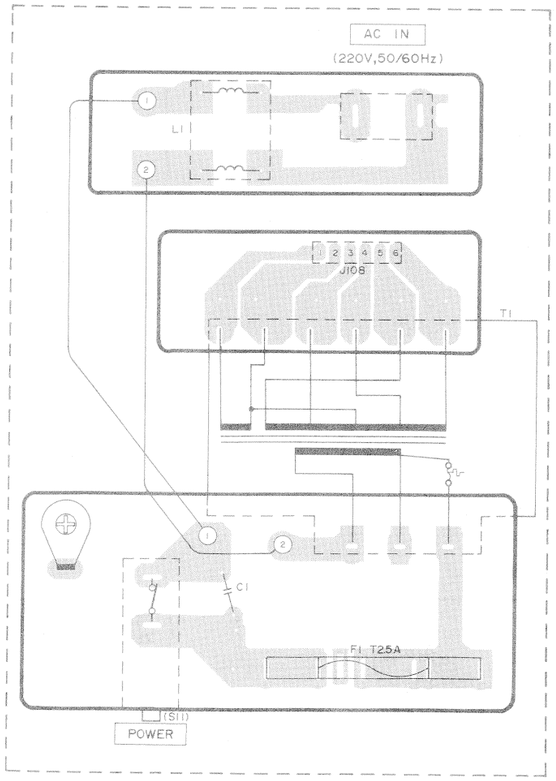


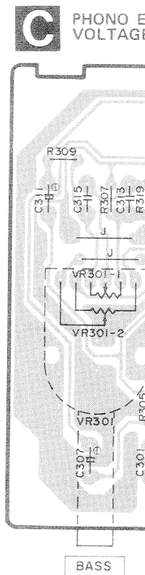


(E,EF,EH,EB,EI,EK,XL) ONLY



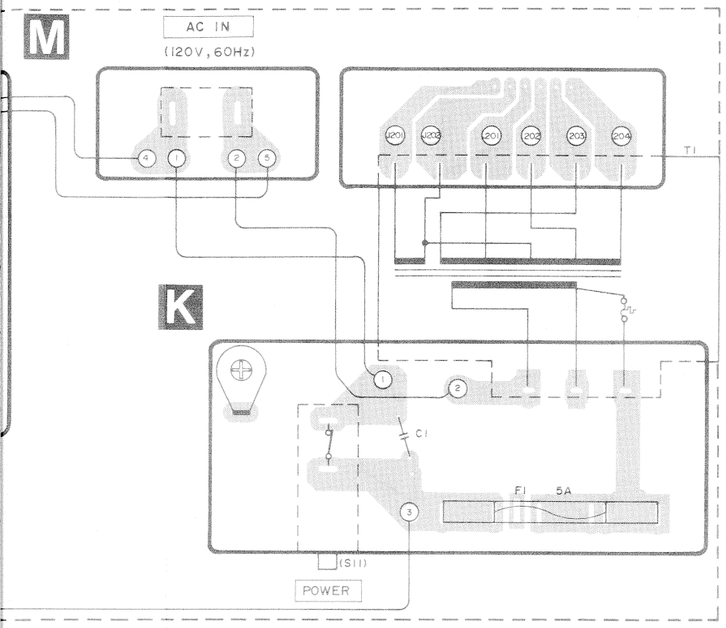
(M,MC) ONLY





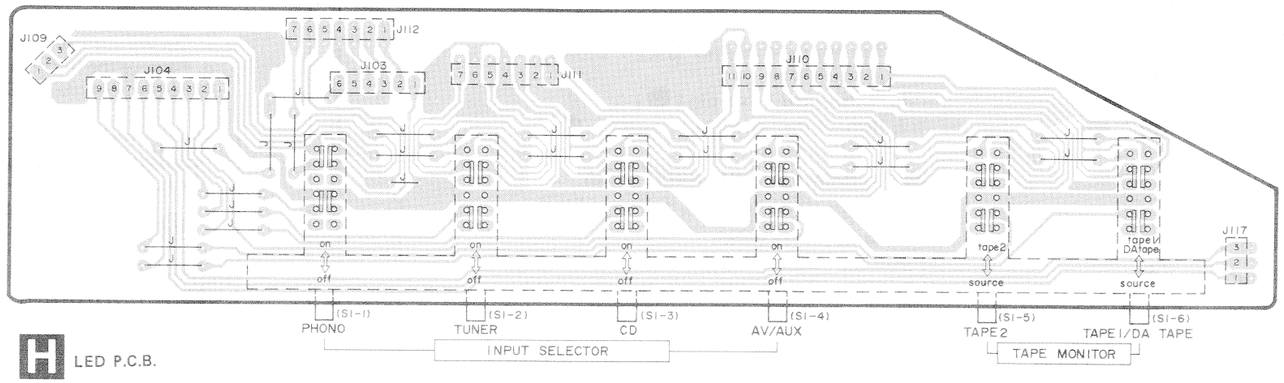
M

AC IN
(120V, 60Hz)

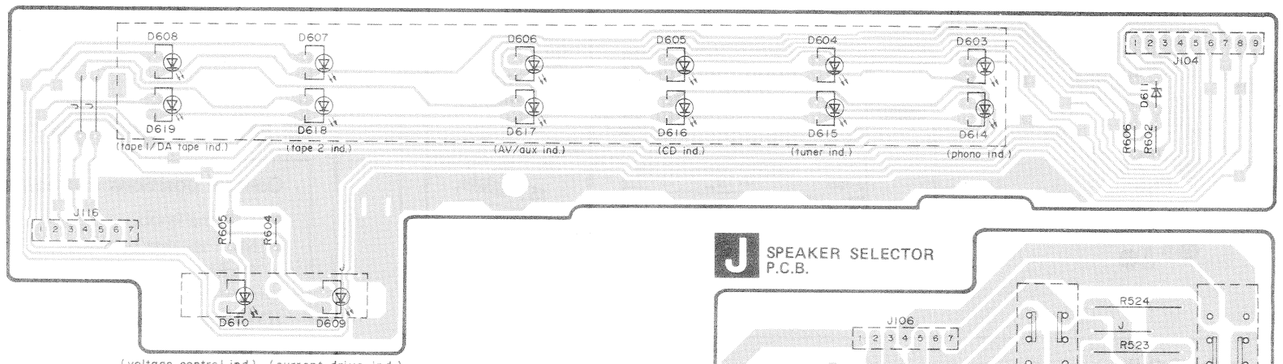


K

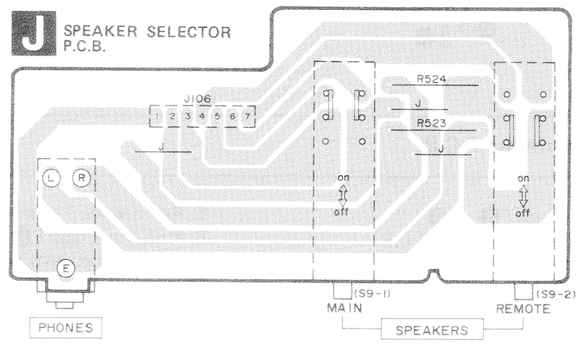
G INPUT/OUTPUT SELECTOR P.C.B.



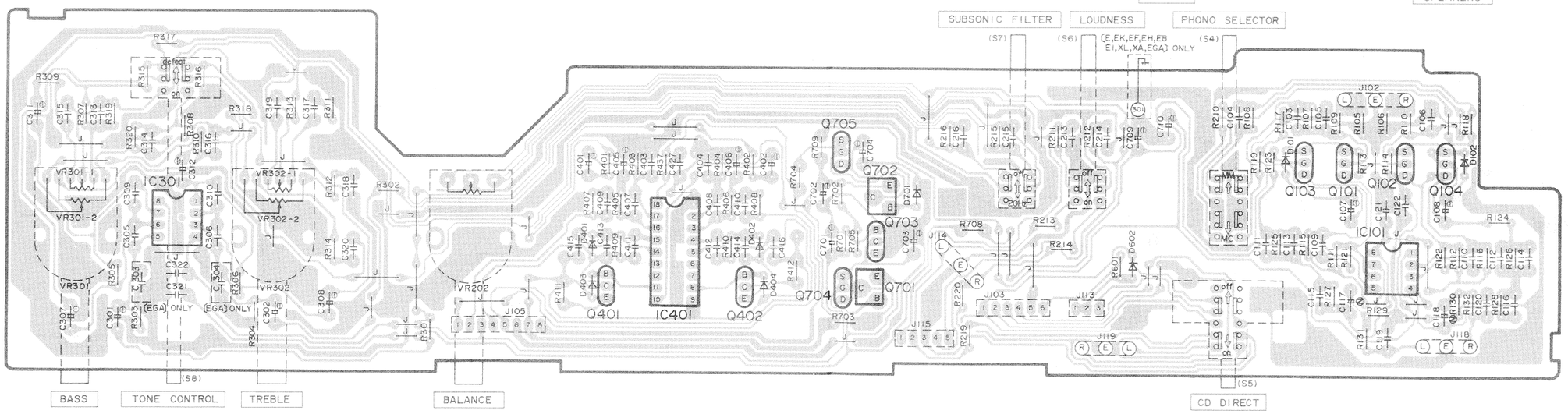
H LED P.C.B.



J SPEAKER SELECTOR P.C.B.



C PHONO EQUALIZER/ TONE CONTROL/ VOLTAGE CONTROL AMP. P.C.B.



20 21 22 23 26 27 28

PHONO EXT OUT EXT IN GND TUNER CD AV/AUX TAPE 2 (REC OUT) (PLAYBACK) TAPE 1/DA TAPE (REC OUT) (PLAYBACK) SPEAKERS (R ch) (L ch)

A

F

(CD direct ind.)

D

E

VOLUME

NOT USED P.C.B. For [M, MC] areas

N

SPEAKER IMPEDANCE

(S10) (8Ω ⟷ 16Ω ..... MAIN OR REMOTE)

(4~6Ω ⟷ 8~16Ω ..... MAIN AND REMOTE)

I

6 ..... TAPE 1 ▶ 2
5 ..... TAPE 2 ▶ 1
4 ..... AV/AUX
3 ..... CD
2 ..... TUNER
1 ..... PHONO

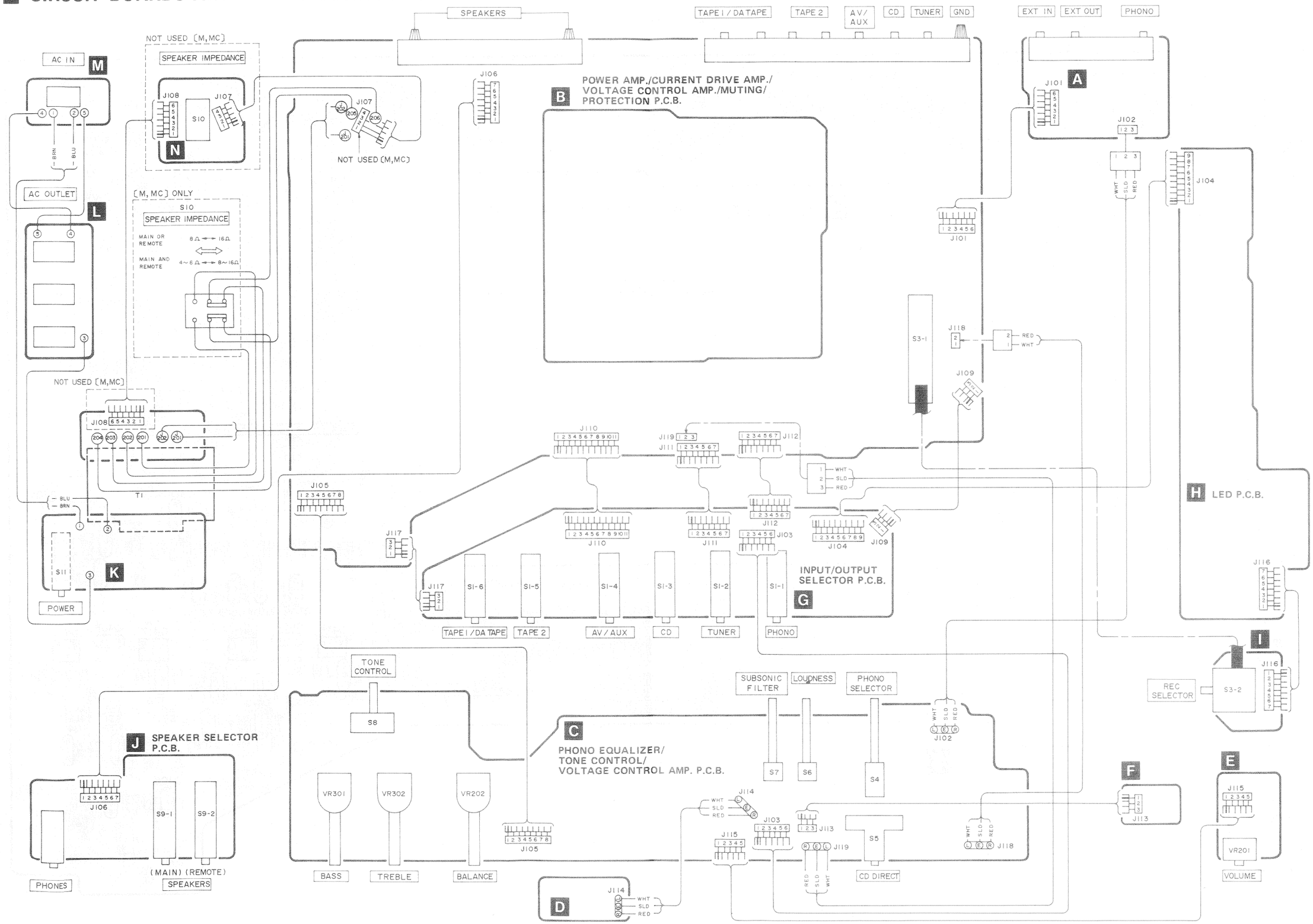
REC SELECTOR

B POWER AMP./CURRENT DRIVE AMP./VOLTAGE CONTROL AMP./MUTING/ PROTECTION P.C.B.

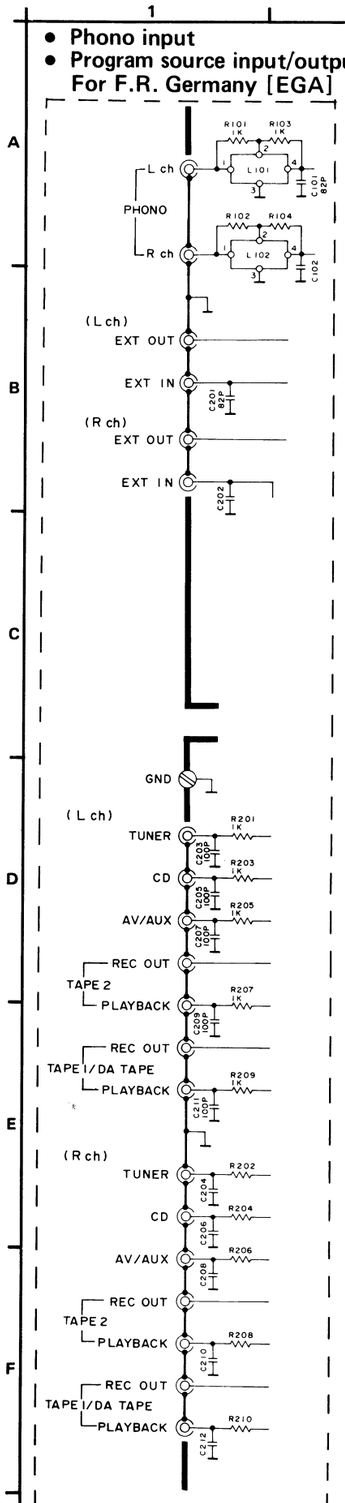
(C) (R) (L) Resistors, Capacitors and Coils indicated by (C), (R) or (L) area used only in the EGA (F.R. Germany) area.

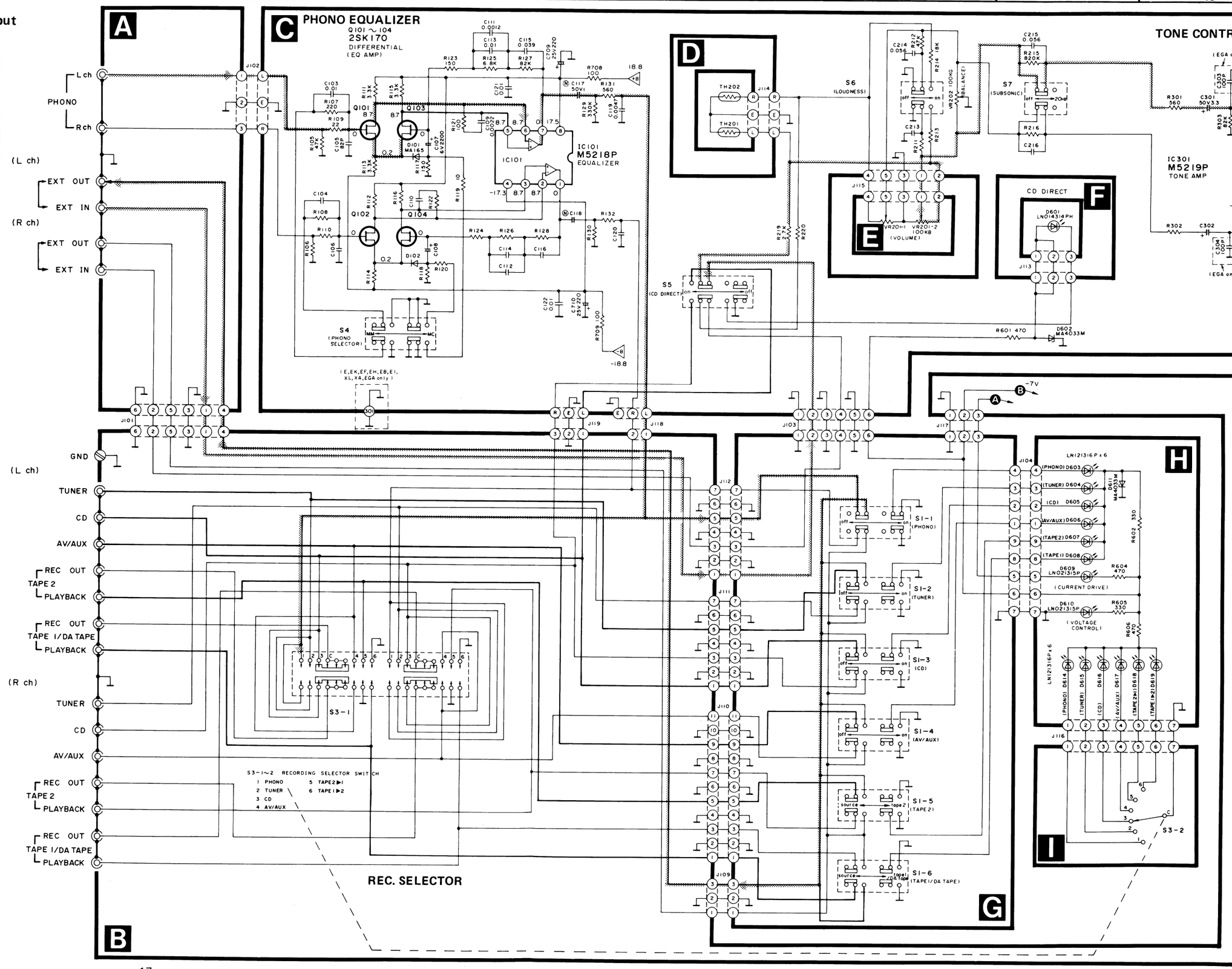
SU-V60

■ CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM



- Phono input
- Program source input/output
For F.R. Germany [EGA]

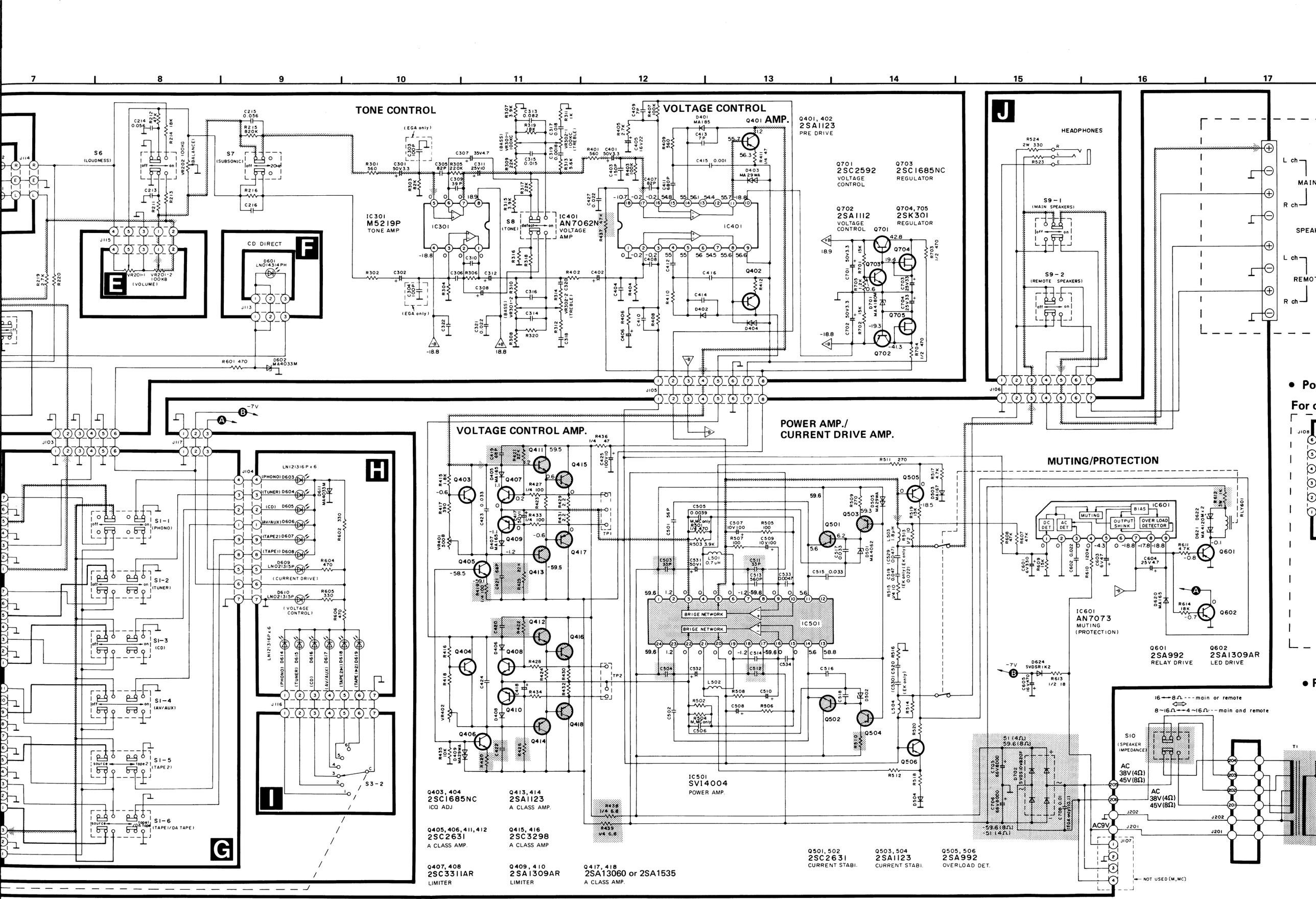




Q403, 404
2SC1685NC
ICQ ADJ

Q405, 406, 411, 412
2SC2631
A CLASS AMP.

Q407, 408
2SC3311AR
LIMITER


TONE CONTROL
VOLTAGE CONTROL
Q401 AMP.
Q401, 402
2SA1123
PRE DRIVE
IC301
M5219P
TONE AMP
IC401
AN7062N
VOLTAGE AMP
Q701
2SC2592
VOLTAGE CONTROL
Q703
2SC1685NC
REGULATOR
Q702
2SA1112
VOLTAGE CONTROL
Q704, 705
2SK301
REGULATOR
S6
(LOUDNESS)
S7
(SUBSONIC)
S8
(TONE)
VR202 (BALANCE)
VR201-1 VR201-2
(VOLUME)
CD DIRECT
J
HEADPHONES
S9-1
(MAIN SPEAKERS)
S9-2
(REMOTE SPEAKERS)
L ch
R ch
MAIN
SPEAKERS
REMOTE
VOLTAGE CONTROL AMP.
POWER AMP./
CURRENT DRIVE AMP.
MUTING/PROTECTION
IC501
SV14004
POWER AMP.
IC601
AN7073
MUTING
(PROTECTION)
Q601
2SA992
RELAY DRIVE
Q602
2SA1309AR
LED DRIVE
S1-1 (PHONO)
S1-2 (TUNER)
S1-3 (CD)
S1-4 (AV/AUX)
S1-5 (TAPE2)
S1-6 (TAPE1/DA TAPE)
(CURRENT DRIVE)
(VOLTAGE CONTROL)
S3-2
S10
(SPEAKER IMPEDANCE)
16Ω — 8Ω ---- main or remote
8~16Ω — 4~16Ω ---- main and remote
AC 38V(4Ω) 45V(8Ω)
AC9V
NOT USED (M, MC)
Q403, 404
2SC1685NC
ICQ ADJ
Q413, 414
2SA1123
A CLASS AMP.
Q405, 406, 411, 412
2SC2631
A CLASS AMP.
Q415, 416
2SC3298
A CLASS AMP
Q407, 408
2SC3311AR
LIMITER
Q409, 410
2SA1309AR
LIMITER
Q417, 418
2SA13060 or 2SA1535
A CLASS AMP.
Q501, 502
2SC2631
CURRENT STABI.
Q503, 504
2SA1123
CURRENT STABI.
Q505, 506
2SA992
OVERLOAD DET.

■ SCHEMATIC DIAGRAM

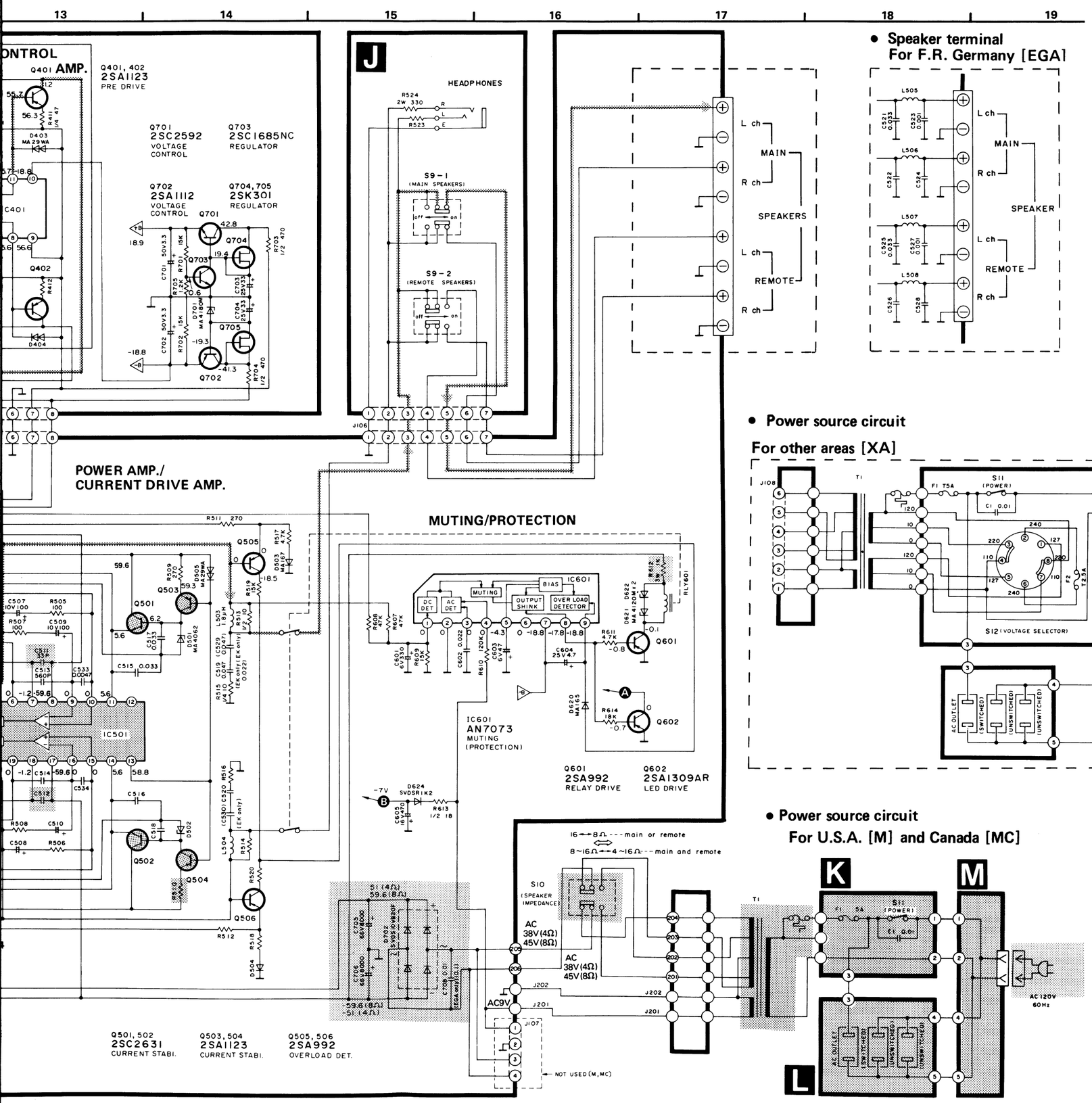
(This schematic diagram may be modified at any time with the development of new technology.)

Note:

1. **S1-1 ~ S1-4:** Input selector switch in "**phono**" position.
   S1-1: phono S1-2: tuner S1-3: CD
   S1-4: AV/aux S1-5: Tape 2 S1-6: Tape 1/DA tape
2. **S3-1, S3-2:** Recording selector in **"CD"** position.
3. **S4:** Phono selector in **"MM"** position.
   (▟ MM, ▔ MC)
4. **S5:** CD direct switch in "**off**" position.
   (▟ off, ▔ on)
5. **S6:** Loudness switch in "**off**" position.
   (▟ off, ▔ on)
6. **S7:** Subsonic filter switch in **"off"** position.
   (▟ off,, ▔ 20Hz)
7. **S8:** Tone control switch in "**defeat**" position.
   (▟ defeat, ▔ on)
8. **S9-1:** Main speaker switch in "**on**" position.
   (▟ off, ▔ on)
9. **S9-2:** Remote speaker switch in "**off**" position.
   (▟ off, ▔ on)
10. **S10:** Impedance select switch in "**8 ~16Ω/16Ω**" position.
    (8 ~ 16Ω/16Ω, ↔ 4 ~ 6Ω/8Ω)
11. **S11:** Power switch in "**on**" position.
    (▟ off, ▔ on)
12. **S12:** (For [XA] area only): Voltage selector switch in **"110V"** position.
    (127V ↔ 110V ↔ 220V ↔ 240V)
13. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
14. ▒▒▒ Phono signal (Lch)
    ——— Positive voltage lines or Nagative voltage lines.

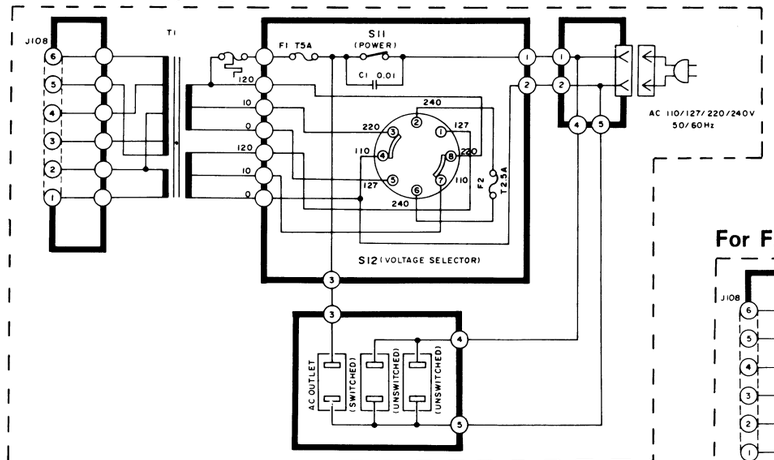
IMPORTANT SAFETY NOTICE

The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

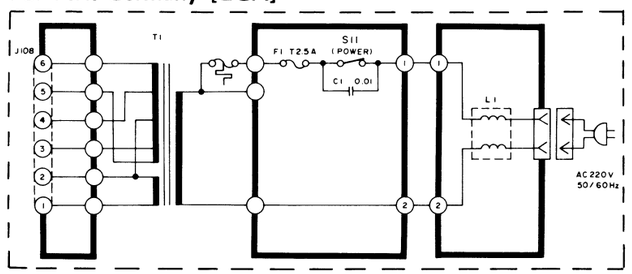


• Speaker terminal
For F.R. Germany [EGA]

• Power source circuit
For other areas [XA]

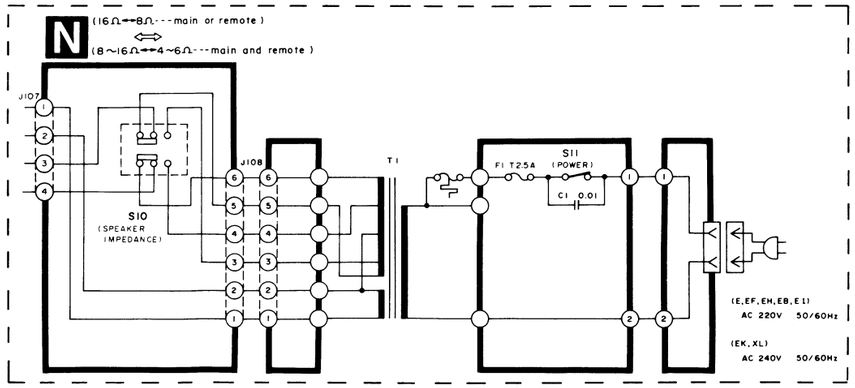


For F.R. Germany [EGA]



• Power source circuit
For U.S.A. [M] and Canada [MC]

For continental Europe and Australia



■ REPLACEMENT PARTS LIST

Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety nitice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. Ⓚ – marked parts are used for black only, while ○ – marked parts are for silver type only.
4. Part other than Ⓚ – and ○ – marked are used for both black and silver type.
5. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
6. The "Ⓢ" mark is service standard parts and may differ from production parts.
7. The unit of resistance is OHM (Ω). K = 1000Ω, M = 1000KΩ
8. The unit of capacitance is MICROFARAD (μF). P = 10^{-6}μF.
9. The parenthesized numbers in the column of description stand for the quantity per set.

Resistor Type	Wattage	Tolerance
ERD : Carbon ERG : Metal Oxide ERC : Solid	25 : 1/4W 2F : 1/4W S2 : 1/4W S1 : 1/2W 12 : 1/2W	J : ± 5% G : ± 2% K : ±10%

Capacitor Type		Voltage: ECEA Type	Voltage: Other	Tolerance
ECEA....N	: Non-polar Electrolytic	2R3 : 2.3V DC	05 : 50V DC	C : ± 0.25pF
ECEA	: Electrolytic	OJ : 6.3V	1H : 50V DC	J : ± 5%
ECCD	: Ceramic	1C : 16V	1 : 125V DC	K : ±10%
ECKD	: Ceramic	1E : 25V	2H : 500V DC	Z : +80%, −20%
ECQM	: Polyester	1V : 35V	KC : 400V AC	M : ±20%
ECQV	: Polyester	1H : 50V		
ECQP	: Polypropylene	50 : 50V		
EECW	: Liquid electrolyte double layer capacitor	25 : 25V		
ECKF	: Ceramic	2A : 100V		

● RESISTORS

Ref. No.	Part No.	Value
R101, 102 [EGA] only	ERDS2TJ102	1K
R103, 104 [EGA] only	ERDS2TJ102	1K
R105, 106	ERDS2TJ473	47K
R107, 108	ERDS2TJ221	220
R109, 110	ERDS2TJ220	22
R111, 112	ER0S2TKG3301	3.3K
R113, 114	ERDS2TJ332	3.3K
R115, 116	ER0S2TKG3301	3.3K
R117, 118	ERDS2TJ151	150
R119, 120	ERDS2TJ100	10
R121, 122	ERDS2TJ101	100
R123, 124	ERDS2TJ151	150
R125, 126	ERDS2TJ682	6.8K
R127, 128	ERDS2TJ823	82K
R129, 130	ERDS2TJ334	330K
R131, 132	ERDS2TJ561	560
R201, 202 [EGA] only	ERDS2TJ102	1K
R203, 204 [EGA] only	ERDS2TJ102	1K
R205, 206 [EGA] only	ERDS2TJ102	1K
R207, 208 [EGA] only	ERDS2TJ102	1K
R209, 210 [EGA] only	ERDS2TJ102	1K

Ref. No.	Part No.	Value
R211, 212	ERDS2TJ473	47K
R213, 214	ERDS2TJ183	18K
R215, 216	ERDS2TJ824	820K
R219, 220	ERDS2TJ272	2.7K
R301, 302	ERDS2TJ561	560
R303, 304	ERDS2TJ823	82K
R305, 306	ERDS2TJ224	220K
R307, 308	ERDS2TJ392	3.9K
R309, 310	ERDS2TJ223	22K
R311, 312	ERDS2TJ102	1K
R313, 314	ERDS2TJ562	5.6K
R315, 316	ERDS2TJ392	3.9K
R317, 318	ERDS2TJ223	22K
R319, 320	ERDS2TJ183	18K
R401, 402	ERDS2TJ561	560
R403, 404	ERDS2TJ104	100K
R405, 406	ERDS2TJ272	2.7K
R407, 408	ERDS2TJ104	100K
R409, 410	ERDS2TJ561	560
R411, 412 ⚠	ERD25FJ470	47
R415, 416	ERDS2TJ182	1.8K
R417, 418	ERDS2TJ391	390
R419, 420 ⚠	ERD25FJ101	100
R421, 422	ERDS2TJ223	22K
R423, 424	ERDS2TJ332	3.3K
R425, 426	ERDS2TJ223	22K
R427, 428 ⚠	ERD25FJ101	100
R429, 430	ERDS2TJ2R2	2.2

Ref. No.	Part No.	Value
R431, 432	ERDS2TJ2R2	2.2
R433, 434 ⚠	ERD25FJ101	100
R435	ERDS2TJ103	10K
R436 ⚠	ERD25FJ470	47
R437	ERDS2TJ473	47K
R438, 439 ⚠	ERD25FJ6R8	6.8
R501, 502 [M, MC]	ERD2FCG471	47
R501, 502 [other]	EROS2TKF4220	422
R503, 504 [M, MC]	ERDS2TJ392	3.9K
R505, 506 [M, MC]	ERD2FCG101	100
R505, 506 [other]	EROS2TKF1000	1
R507, 508 [M, MC]	ERD2FCG101	100
R507, 508 [other]	EROS2TKF1000	1
R509, 510	ERDS2TJ271	270
R511, 512	ERDS2TJ271	270
R513, 514 ⚠	ERDS1FJ100	10
R515, 516 ⚠	ERD25FJ100	10
R517, 518	ERDS2TJ472	4.7K

Ref. No.	Part No.	Value
R519, 520 Except [M, MC]	ERDS2TJ153	15K
R521, 522 [M, MC]	ERDS2TJ153	15K
R523, 524	ERG2SJ331	330
R529 [M, MC]	ERDS2TJ153	15K
R601	ERDS2TJ471	470
R602	ERDS2TJ331	330
R604	ERDS2TJ471	470
R605	ERDS2TJ331	330
R606	ERDS2TJ471	470
R607, 608	ERDS2TJ473	47K
R609 Except [M, MC]	ERDS2TJ153	15K
R610	ERDS2TJ124	120K
R611	ERDS2TJ472	4.7K
R612	ERG3SJ102	1K
R613 ⚠	ERDS1FJ180	18
R614	ERDS2TJ183	18K
R701, 702	ERDS2TJ153	15K
R703, 704 ⚠	ERDS1FJ471	470
R705	ERDS2TJ122	1.2K
R708, 709	ERDS2TJ101	100

● CAPACITORS

Ref. No.	Part No.	Value
C1 [EK] only	ECKDKC103PF2	0.01
C1 [other]	ECKDNS103ZV	0.01
C101, 102 [EGA] only	ECCD1H820K	82P
C103, 104	ECQM1H103JZ	0.01
C105, 106	ECCD1H820K	82P
C107, 108	ECEA0JU222	2200
C109, 110	ECQM1H222JZ	0.0022
C111, 112	ECQM1H222JZ	0.0022
C113, 114	ECQM1H103JZ	0.01
C115, 116	ECQM1H393JZ	0.039
C117, 118 Ⓚ ⚠	ECEA1HN010S	1
C119, 120	ECQM1H472JZ	0.0047
C121, 122	ECKD1H103ZF	0.01
C201, 202 [EGA] only	ECCD1H820K	82P
C203, 204 [EGA] only	ECCD1H101K	100P
C205, 206 [EGA] only	ECCD1H101K	100P
C207, 208 [EGA] only	ECCD1H101K	100P

Ref. No.	Part No.	Value
C209, 210 [EGA] only	ECCD1H101K	100P
C211, 212 [EGA] only	ECCD1H101K	100P
C213, 214	ECQM1H563JZ	0.056
C215, 216	ECQM1H563JZ	0.056
C301, 302	ECEA1HU3R3	3.3
C303, 304 [EGA] only	ECCD1H101K	100P
C305, 306	ECCD1H820K	82P
C307, 308	ECEA1VU4R7	4.7
C309, 310	ECCD1H390K	39P
C311, 312	ECEA1EU100	10
C313, 314	ECQM1H823JZ	0.082
C315, 316	ECQM1H153JZ	0.015
C317, 318	ECQM1H183JZ	0.018
C319, 320	ECQM1H182JZ	0.0018
C321, 322	ECKD1H223ZF	0.022
C401, 402	ECEA1HU3R3	3.3
C403, 404	ECCD1H151K	150P
C405, 406	ECEA1CU220	22
C407, 408	ECCD1H820K	80P
C409, 410	ECCD1H070D	7P
C411, 412	ECKD1H681KB	680P

Ref. No.	Part No.	Value
C413, 414	ECCD2H070D	7P
C415, 416	ECQM1H102JZ	0.001
C419, 420	ECCD2H680K	68P
C421, 422	ECCD2H680K	68P
C423, 424	ECKD1H333ZF	0.033
C425	ECEA2AU100	10
C427	ECKD1H223ZF	0.022
C501, 502	ECCD1H560K	56P
C503, 504	ECCD2H330K	33P
C505, 506	ECQM1H392JZ	0.0039
C507, 508	ECEA1AU101	100
C509, 510	ECEA1AU101	100
C511, 512	ECCD2H330K	33P
C513, 514	ECKD1H561KB	560P
C515, 516	ECKD1H333ZF	0.033
C517, 518	ECKD1H333ZF	0.033
C519, 520 [EK] only	ECQM1H473JZ	0.047
C519, 520 [other]	ECQM1H223JZ	0.022
C521, 522 [EGA] only	ECQM1H333JZ	0.033

Ref. No.	Part No.	Value
C523, 524 [EGA] only	ECKD1H102MD	0.001
C525, 526 [EGA] only	ECQM1H333JZ	0.033
C527, 528 [EGA] only	ECKD1H102MD	0.001
C529, 530 [EK] only	ECQM1H473JZ	0.047
C531, 532	ECEA1HU010	1
C601	ECEA0JU331	330
C602	ECFTD223KXL	0.022
C603	ECEA0JU470	47
C604	ECEA1EU4R7	4.7
C605	ECEA1CU471	470
C701, 702	ECEA1HU3R3	3.3
C703, 704	ECEA1EU330	33
C705, 706 ⚠	ECES66V802U	8000
C708 [EGA] only	ECQE2104KS	0.1
C708 [other]	ECKD2H103PE	0.01
C709, 710	ECEA1EU101	100

Ref. No.		Part No.	Description
INTEGRATED CIRCUITS			
IC101		M5218P	IC
IC301		M5219P	IC
IC401		AN7062N	IC
IC501	⚠	SVI4004	IC
IC601		AN7073	IC
TRANSISTORS			
Q101~104		2SK170BLV	Transistor
Q401, 402, 413, 414, 503, 504		2SA1123−R	Transistor
Q403, 404, 703		2SC1685RST	Transistor
Q405, 406, 411, 412, 501, 502		2SC2631−R	Transistor
Q407, 408		2SC3311−Q	Transistor
Q409, 410, 602		2SA1309Q	Transistor
Q415, 416		2SC3298AY	Transistor
Q417, 418 [M, MC]		2SA1535RLS	Transistor
Q417, 418 [other]		2SA1306AY	Transistor
Q505, 506, 601		2SA992E	Transistor
Q701		2SC2592−R	Transistor
Q702		2SA1112−R	Transistor
Q704, 705		2SK301−QRS	Transistor
DIODES			
D101, 102, 405~408, 620		MA165	Diode
D401, 402		MA185	Diode
D403, 404, 409, 505		MA29WA	Diode
D501, 502		MA4062−M	Diode
D503, 504		MA167	Diode
D601		LN84YCP	L.E.D.
D602, 611		MA4033M	Diode
D603~608, 610		LN863RCPP	L.E.D.
D609, 614~619		LN463YCPP	L.E.D.
D621, 622		MA4120−M	Diode
D624		SVDSR1K2	Diode
D701		MA4180−M	Diode
D702		SVDS10VB20F	Diode
COILS			
L1 [EGA] only		SLQZ650MH49	Coil
L101, 102 [EGA] only		SLM1Z33	Coil
L501, 502		SLQY07G−40	Coil
L503, 504		SLQY18G−10	Coil
L505~508 [EGA] only		SLQY07G−40	Coil
TRANSFORMERS			
T1 [M, MC]	⚠	SLT5P245−W	Power Transformer
T1 [XA]	⚠	SLT5P248−W	Power Transformer
T1 [EK, XL]	⚠	SLT5P247−W	Power Transformer
T1 [other]	⚠	SLT5P246−W	Power Transformer
VARIABLE RESISTORS			
VR201		EWJKXA090B15	Main Volume
VR202		EVH0YA015G15	Balance
VR301, 302		EWCRYA023C15	Bass/Treble
VR401, 402		EVNK6AA00B52	I_{CQ} Adj.
THERMISTERS			
TH201, 202		ERTD2ZHL104S	Thermisters
FUSES			
F1 [M, MC]	⚠	XBA1F50NU14	125V, 5A
F1 [EK]	⚠	XBA2C25TB0	250V, T2.5A
F1 [other]	⚠	XBA2C25TR0	250V, T2.5A
F1 [XA]	⚠	XBA2C50TR0	250V, T5A
F2 [XA]	⚠	XBA2C25TR0	250V, T2.5A
SWITCHES			
S1-1~1-6		SSH656	Input Selector
S3-1		ESA2682	Rec. Selector
S3-2		ESA335029B	Rec. Selector
S4		SSH3704	Phono Selector
S5		SSH1215	CD Direct
S6		SSH3704	Loudness
S7		SSH3704	Subsonic
S8		SSH1214	Tone
S9-1		SSH2115	Main Speaker Selector
S9-2		SSH2115	Remote Speaker Selector

Ref. No.		Part No.	Description
SWITCHES			
S10 [M]		ESD3911T	
S10 [MC]		SSS174	
S10 [other]		SSS154	
S11	⚠	ESB8215V	
S12 [XA] only		ESE37263	
RELAY			
RLY601		SSY126	

Ref. No.		Part No.	Description
CABINET and CHASSIS PAR			
1	○	SBN1207−1	Kn Ba
1	Ⓚ	SBN1206	Kn Ba
2	○	SBN1089−4	Kn
2	Ⓚ	SBN1089−3	Kn
3	○	SBN1210−1	Kn
3	Ⓚ	SBN1210	Kn
4	○	SGWUV60−SE	Fr
4	Ⓚ	SGWUV60−KE	Fr
5		SMC6407	Sh
6		LN121316P	L.E
7		LN021315P	L.E
8	○	SBC439	Bu
8	Ⓚ	SBC439−2	Bu
9		SJJ126B	He
10 [EK]	○	SKCUV60−SK	Ca
10 [other]	○	SKC1960S982	Ca
10 [EK]	Ⓚ	SKCUV60−KK	Ca
10 [other]	Ⓚ	SKC1960K992	Ca
11	○	SBC719	Bu To MI
11	Ⓚ	SBC719−1	Bu To MI
12	○	SBC820−1	Bu
12	Ⓚ	SBC820	Bu
13		LN014314PH	L.E
14		SHE187−1	P.C
15		SUB254	Co In
16 [M, MC]		SKUUV60−KM	Bo
16 [XA]		SKUUV60−KX	Bo
16 [other]		SKU11420	Bo
17		SKL299	Fo
18		SKL299−1	Fo
19		SHR401−1	Ny
20		SJS305	Co
21 [M, MC]		SJT389	Fu
21 [other]		SJT388	Fu
22		SUB256	Co Po
23	○	SBC666	Bu
23	Ⓚ	SBC666−3	Bu
24		SMX909	Ins
25 [M, MC]		SGP6810−1C	Re
25 [E]		SGP6810E	Re
25 [EK]		SGP6810G	Re
25 [XA]		SGP6810−1B	Re
25 [XL]		SGP6810H	Re
25 [EGA]		SGPUV60−KG	Re
25 [other]		SGPUV60−KE	Re
26 [M, MC]	⚠	SJS9329B	AC
26 [XA]	⚠	SJS9328B	AC

ns specify the area.
for all areas.
nd may differ from

(μF).

umn of description

	Tolerance
	C : ±0.25pF J : ± 5% K : ±10% Z : +80%, −20% M : ±20%

Part No.	Value
RDS2TJ153	15K
RDS2TJ153	15K
RG2SJ331	330
RDS2TJ153	15K
RDS2TJ471	470
RDS2TJ331	330
RDS2TJ471	470
RDS2TJ331	330
RDS2TJ471	470
RDS2TJ473	47K
RDS2TJ153	15K
RDS2TJ124	120K
RDS2TJ472	4.7K
RG3SJ102	1K
RDS1FJ180	18
RDS2TJ183	18K
RDS2TJ153	15K
RDS1FJ471	470
RDS2TJ122	1.2K
RDS2TJ101	100

Part No.	Value
CKD1H102MD	0.001
CQM1H333JZ	0.033
CKD1H102MD	0.001
CQM1H473JZ	0.047
CEA1HU010	1
CEA0JU331	330
CFTD223KXL	0.022
CEA0JU470	47
CEA1EU4R7	4.7
CEA1CU471	470
CEA1HU3R3	3.3
CEA1EU330	33
CES66V802U	8000
CQE2104KS	0.1
CKD2H103PE	0.01
CEA1EU101	100

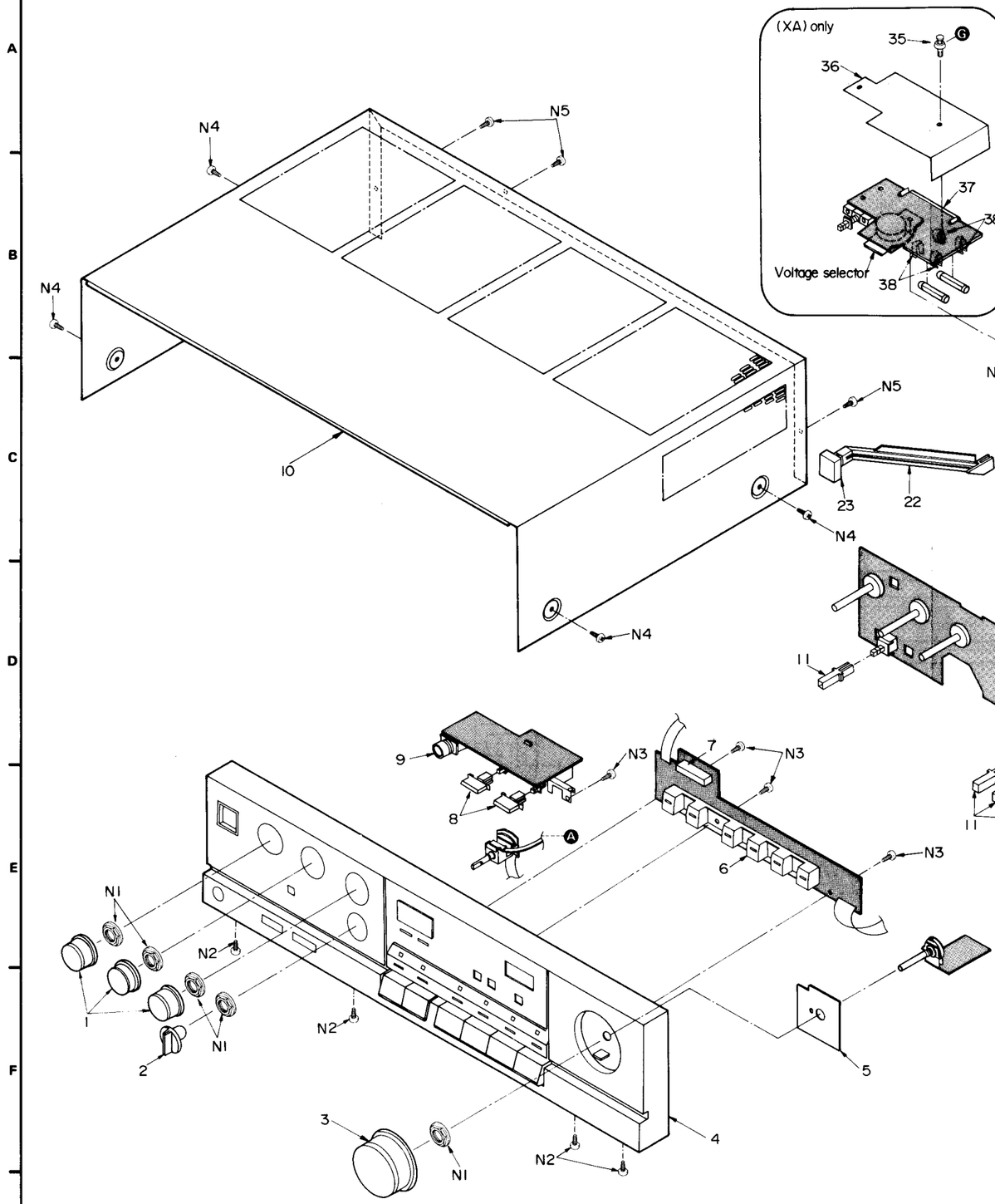
Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC101	M5218P	IC
IC301	M5219P	IC
IC401	AN7062N	IC
IC501 ⚠	SVI4004	IC
IC601	AN7073	IC
TRANSISTORS		
Q101~104	2SK170BLV	Transistor
Q401, 402, 413, 414, 503, 504	2SA1123−R	Transistor
Q403, 404, 703	2SC1685RST	Transistor
Q405, 406, 411, 412, 501, 502	2SC2631−R	Transistor
Q407, 408	2SC3311−Q	Transistor
Q409, 410, 602	2SA1309Q	Transistor
Q415, 416	2SC3298AY	Transistor
Q417, 418 [M, MC]	2SA1535RLS	Transistor
Q417, 418 [other]	2SA1306AY	Transistor
Q505, 506, 601	2SA992E	Transistor
Q701	2SC2592−R	Transistor
Q702	2SA1112−R	Transistor
Q704, 705	2SK301−QRS	Transistor
DIODES		
D101, 102, 405~408, 620	MA165	Diode
D401, 402	MA185	Diode
D403, 404, 409, 505	MA29WA	Diode
D501, 502	MA4062−M	Diode
D503, 504	MA167	Diode
D601	LN84YCP	L.E.D.
D602, 611	MA4033M	Diode
D603~608, 610	LN863RCPP	L.E.D.
D609, 614~619	LN463YCPP	L.E.D.
D621, 622	MA4120−M	Diode
D624	SVDSR1K2	Diode
D701	MA4180−M	Diode
D702	SVDS10VB20F	Diode
COILS		
L1 [EGA] only	SLQZ650MH49	Coil
L101, 102 [EGA] only	SLM1Z33	Coil
L501, 502	SLQY07G−40	Coil
L503, 504	SLQY18G−10	Coil
L505~508 [EGA] only	SLQY07G−40	Coil
TRANSFORMERS		
T1 [M, MC] ⚠	SLT5P245−W	Power Transformer
T1 [XA] ⚠	SLT5P248−W	Power Transformer
T1 [EK, XL] ⚠	SLT5P247−W	Power Transformer
T1 [other] ⚠	SLT5P246−W	Power Transformer
VARIABLE RESISTORS		
VR201	EWJKXA090B15	Main Volume
VR202	EVH0YA015G15	Balance
VR301, 302	EWCRYA023C15	Bass/Treble
VR401, 402	EVNK6AA00B52	I_{CQ} Adj.
THERMISTERS		
TH201, 202	ERTD2ZHL104S	Thermisters
FUSES		
F1 [M, MC] ⚠	XBA1F50NU14	125V, 5A
F1 [EK] ⚠	XBA2C25TB0	250V, T2.5A
F1 [other] ⚠	XBA2C25TR0	250V, T2.5A
F1 [XA] ⚠	XBA2C50TR0	250V, T5A
F2 [XA] ⚠	XBA2C25TR0	250V, T2.5A
SWITCHES		
S1-1~1-6	SSH656	Input Selector
S3-1	ESA2682	Rec. Selector
S3-2	ESA335029B	Rec. Selector
S4	SSH3704	Phono Selector
S5	SSH1215	CD Direct
S6	SSH3704	Loudness
S7	SSH3704	Subsonic
S8	SSH1214	Tone
S9-1	SSH2115	Main Speaker Selector
S9-2	SSH2115	Remote Speaker Selector

Ref. No.	Part No.	Description
SWITCHES		
S10 [M]	ESD3911T	Impedance Selector
S10 [MC]	SSS174	Impedance Selector
S10 [other]	SSS154	Speaker Impedance Selector
S11 ⚠	ESB8215V	Power Source
S12 [XA] only	ESE37263	Voltage Selector
RELAY		
RLY601	SSY126	Relay

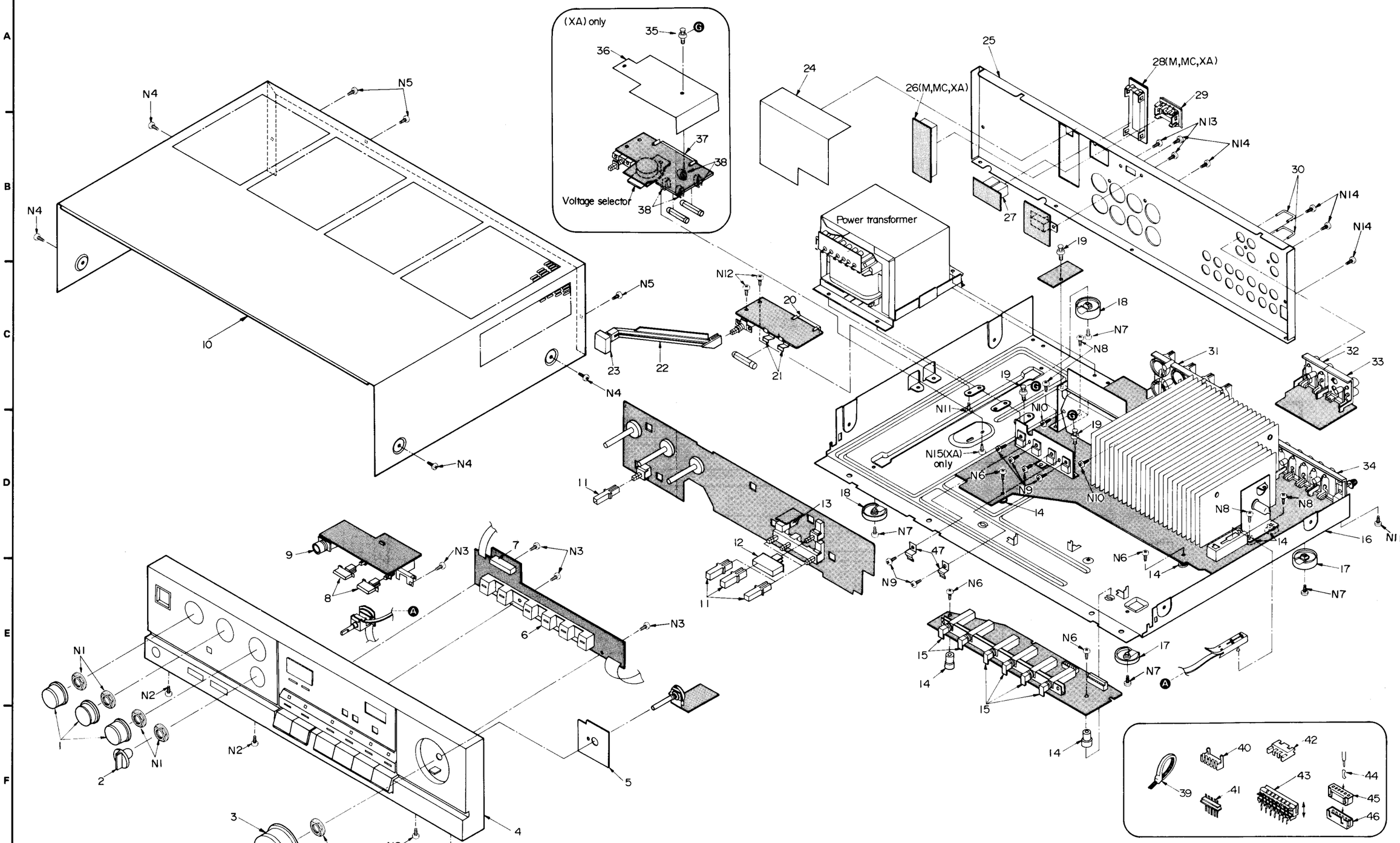
Ref. No.		Part No.	Description	
CABINET and CHASSIS PARTS				
1	○	SBN1207−1	Knob, Bass, Treble, Balance	(3)
1	Ⓚ	SBN1206	Knob, Bass, Treble, Balance	(3)
2	○	SBN1089−4	Knob, Selector	(1)
2	Ⓚ	SBN1089−3	Knob, Selector	(1)
3	○	SBN1210−1	Knob, Volume	(1)
3	Ⓚ	SBN1210	Knob, Volume	(1)
4	○	SGWUV60−SE	Front Panel Ass'y	(1)
4	Ⓚ	SGWUV60−KE	Front Panel Ass'y	(1)
5		SMC6407	Shield Plate	(1)
6		LN121316P	L.E.D. Ass'y	(1)
7		LN021315P	L.E.D. Ass'y	(1)
8	○	SBC439	Button, S.P Selector	(2)
8	Ⓚ	SBC439−2	Button, S.P Selector	(2)
9		SJJ126B	Headphone Jack	(1)
10 [EK]	○	SKCUV60−SK	Cabinet Ass'y	(1)
10 [other]	○	SKC1960S982	Cabinet	(1)
10 [EK]	Ⓚ	SKCUV60−KK	Cabinet Ass'y	(1)
10 [other]	Ⓚ	SKC1960K992	Cabinet	(1)
11	○	SBC719	Button, Loudness, Tone, Subsonic, MM/MC	(4)
11	Ⓚ	SBC719−1	Button, Loudness, Tone, Subsonic, MM/MC	(4)
12	○	SBC820−1	Button, CD Direct	(1)
12	Ⓚ	SBC820	Button, CD Direct	(1)
13		LN014314PH	L.E.D.	(1)
14		SHE187−1	P.C.B. Holder	(8)
15		SUB254	Connection Rod, Input Selector	(6)
16 [M, MC]		SKUUV60−KM	Bottom Cover Ass'y	(1)
16 [XA]		SKUUV60−KX	Bottom Cover Ass'y	(1)
16 [other]		SKU11420	Bottom Cover	(1)
17		SKL299	Foot (Right)	(2)
18		SKL299−1	Foot (Left)	(2)
19		SHR401−1	Nylon Pin	(3)
20		SJS305	Connector (3 Pin)	(1)
21 [M, MC]		SJT389	Fuse Holder	(2)
21 [other]		SJT388	Fuse Holder	(2)
22		SUB256	Connection Rod, Power	(1)
23	○	SBC666	Button, Power	(1)
23	Ⓚ	SBC666−3	Button, Power	(1)
24		SMX909	Insulation Cover	(1)
25 [M, MC]		SGP6810−1C	Rear Panel	(1)
25 [E]		SGP6810E	Rear Panel	(1)
25 [EK]		SGP6810G	Rear Panel	(1)
25 [XA]		SGP6810−1B	Rear Panel	(1)
25 [XL]		SGP6810H	Rear Panel	(1)
25 [EGA]		SGPUV60−KG	Rear Panel Ass'y	(1)
25 [other]		SGPUV60−KE	Rear Panel Ass'y	(1)
26 [M, MC] ⚠		SJS9329B	AC Outlet	(1)
26 [XA] ⚠		SJS9328B	AC Outlet	(1)

Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
27 [M, MC, XL] ⚠	SJS9234B	AC Inlet	(1)
27 [other] ⚠	SJS9231B	AC Inlet	(1)
28 [M, MC]	SJS9329A	AC Outlet Cover	(1)
28 [XA]	SJS9328A	AC Outlet Cover	(1)
29 [M, MC, XL]	SJS9234A	AC Inlet Cover	(1)
29 [other]	SJS9231A	AC Inlet Cover	(1)
30	SJP9205−2	Short Pin	(2)
31	SJF4815−1	Speaker Terminal	(1)
32	SJF3057N	EXT. Terminal	(1)
33	SJF3057−5N	Phono Terminal	(1)
34	SJF3062NK	Input Terminal	(1)
35 [XA]	SHR401−1	Nylon Pin	(1)
36 [XA]	SMX916	Insulation Cover	(1)
37 [XA]	SJS702	Connector (7 Pin)	(1)
38 [XA]	SJT347	Fuse Holder	(4)
39	SHR301	Clamper	(5)
40	SJS5341	Connector (3 Pin)	(1)
41	SJT3311	Post (3 Pin)	(3)
42	SJT3321	Post (3 Pin)	(1)
42	SJT3711	Post (7 Pin)	(1)
43	SJT30843−V	Socket (8 Pin)	(1)
43	SJT30943−V	Socket (9 Pin)	(1)
44	SJT783	Connector Pin	(21)
45	SJS5215	Connector (2 Pin)	(1)
45	SJS5331	Connector (3 Pin)	(2)
45	SJS5629	Connector (6 Pin)	(1)
45	SJS5715	Connector (7 Pin)	(1)
46	SJT3213	Post (2 Pin)	(1)
46	SJT3319	Post (3 Pin)	(1)
46	SJT3611	Post (6 Pin)	(1)
47	SMY897	Bracket	(2)
SCREWS			
N1	SNE4021	Nut	(5)
N2	XTBS3+10JFZ1	Tapping, ⊕3×10	(4)
N3	XTB3+10GFR	Tapping, ⊕3×10	(4)
N4 ○	SNE2095−4	Cabinet	(4)
N4 Ⓚ	SNE2095−5	Cabinet	(4)
N5 ○	XTB3+8JFN	Tapping, ⊕3×8	(3)
N5 Ⓚ	XTB3+8JFZ	Tapping, ⊕3×8	(3)
N6	XTB3+20J	Tapping, ⊕3×20	(4)
N7	XTW3+10T	Tapping, ⊕3×10	(6)
N8	XTBS3+20F1	Tapping, ⊕3×20	(4)
N9	XTW3+8T	Transistor	(6)
N10	XYN3+F14	Power IC	(2)
N11	XTB3+8FFZ	Tapping, ⊕3×8	(8)
N12	XTW3+8TFR	Tapping, ⊕3×8	(2)
N13	XYN3+C6FZS	Tapping, ⊕3×8	(2)
N14	XTBS3+8JFZ1	Tapping, ⊕3×8	(6)
N15 [XA]	XYN3+F8	Tapping, ⊕3×8	(1)
ACCESSORIES			
A1 [M, MC] ⚠	SJA172	AC Cord	(1)
A1 [EK] ⚠	SFDAC05G02	AC Cord	(1)
A1 [XL] ⚠	SJA173	AC Cord	(1)
A1 [XA] ⚠	SJA168−1	AC Cord	(1)
A1 [other] ⚠	SFDAC05E03	AC Cord	(1)
A2	SKL302	Foot	(2)
A3 [XA]	SJP9215	Plug Adaptor, AC	(1)
A4 [M]	SQFK10142	Instruction Book	(1)
A4 [MC]	SQFK10143	Instruction Book	(1)
A4 [EGA]	SQFK10146	Instruction Book	(1)
A4 [XA]	SQFK10144	Instruction Book	(1)
A4 [other]	SQFK10145	Instruction Book	(1)
PACKING PARTS			
P1 [M]	SPGK255	Carton Box	(1)
P1 [MC]	SPGK260	Carton Box	(1)
P1 [EK]	SPGK257	Carton Box	(1)
P1 [EF]	SPGK261	Carton Box	(1)
P1 [other]	SPGK256	Carton Box	(1)
P2	SPSK99	Pad (Left)	(1)
P3	SPSK100	Pad (Right)	(1)
P4	SPS4613−1	Pad (Upper)	(1)
P5	SPP653	Polyethylene Bag	(1)
P6 [EF]	SGK1411	Label	(2)

■ EXPLODED VIEW



■ EXPLODED VIEW



Description	
S	
let	(1)
let	(1)
utlet Cover	(1)
utlet Cover	(1)
let Cover	(1)
let Cover	(1)
Pin	(2)
ker Terminal	(1)
Terminal	(1)
o Terminal	(1)
Terminal	(1)
n Pin	(1)
ation Cover	(1)
ector (7 Pin)	(1)
Holder	(4)
per	(5)
ector (3 Pin)	(1)
(3 Pin)	(3)
(3 Pin)	(1)
(7 Pin)	(1)
et (8 Pin)	(1)
et (9 Pin)	(1)
ector Pin	(21)
ector (2 Pin)	(1)
ector (3 Pin)	(2)
ector (6 Pin)	(1)
ector (7 Pin)	(1)
(2 Pin)	(1)
(3 Pin)	(1)
(6 Pin)	(1)
ket	(2)
	(5)
ng, ⊕3×10	(4)
ng, ⊕3×10	(4)
net	(4)
net	(4)
ng, ⊕3×8	(3)
ng, ⊕3×8	(3)
ng, ⊕3×20	(4)
ng, ⊕3×10	(6)
ng, ⊕3×20	(4)
istor	(6)
r IC	(2)
ng, ⊕3×8	(8)
ng, ⊕3×8	(2)
ng, ⊕3×8	(2)
ng, ⊕3×8	(6)
ng, ⊕3×8	(1)
ord	(1)
ord	(1)
ord	(1)
ord	(1)
	(2)
Adaptor, AC	(1)
uction Book	(1)
uction Book	(1)
uction Book	(1)
uction Book	(1)
uction Book	(1)
n Box	(1)
n Box	(1)
n Box	(1)
n Box	(1)
n Box	(1)
Left)	(1)
Right)	(1)
Upper)	(1)
thylene Bag	(1)
	(2)

Printed in Japan
860312000 Ⓚ YY/TM

ORDER NO. HAD8603408C0–A

Stereo Integrated Amplifier

SU-V60

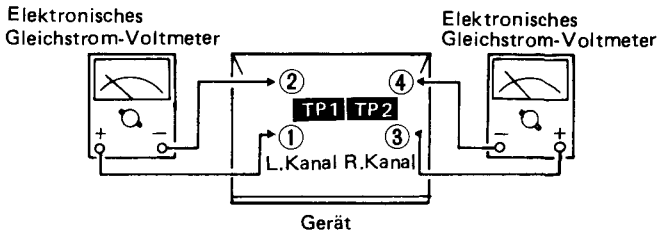
■ MESSUNGEN UND JUSTIERUNGEN

Einstellungen der Bedienelemente und zu verwendende Geräte

- Lautstärkeregler . . . . . ∞
- Hauptlautsprecher-Wahlschalter . . . . . off
- Nebenlautsprecher-Wahlschalter . . . . . off
- Lautsprecherimpedanz-Schalter . . . . . 8Ω ~ 16Ω
- Elektronisches Gleichstrom-Voltmeter

LEERLAUF-(ICQ)-JUSTIERUNG

1. Anschlußverbindungen wie gezeigt vornehmen. (Das Gleichspannungs-Voltmeter an beide Kanäle anschließen.)
2. Die ICQ-Volumenregler (**VR401, VR402**) entgegen dem Uhrzeigersinn drehen.
3. Das Gerät einschalten, wenn es kalt ist, und 15 Sekunden später **VR401** und **VR402** so justieren, daß die Spannung **20mV** beträgt. Ebenfalls überprüfen, daß die Spannung nach Ablauf von **10 – 15** Minuten zwischen **38 – 47mV** (Standardwert ist **40mV**) liegt. (Nach Ablauf von **60** Minuten: unter **50mV**)



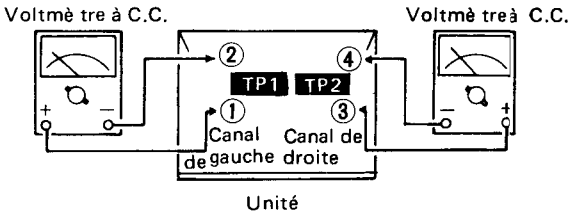
■ MESURAGES ET RÉGLAGES

Positions de réglage et équipement utilisé

- Bouton du volume . . . . . ∞
- Sélecteur du haut-parleur principal . . . . . hors circuit
- Sélecteur du haut-parleur auxiliaire . . . . . hors circuit
- Sélecteur d'impedance des enceints . . . . . 8Ω ~ 16Ω
- Voltmetres électroniques à C.C. (EVM).

RÉGLAGE DU TEMPS MORT (ICQ)

1. Effecture le raccordement comme il est montré. (Raccorder le voltmètre à C.C. sur les deux canaux.)
2. Tourner le volume de contrôle de ICQ (**VR401, VR402**) dans sens inverse des aiguilles d'une montre. des aiguilles d'une montre.
3. Mettre l'appareil en marche lorsqu'il est froid, et 15 sec. plus tard, régler **VR401** et **VR402** de telle sorte que la tension soit de **20mV**. Vérifier aussi que la tension soit de **38 – 47mV** (normale: **40mV**) après un intervalle de **10 – 15** minutes. (Au-dessous de **50mV**, après un intervalle de **60** min.)



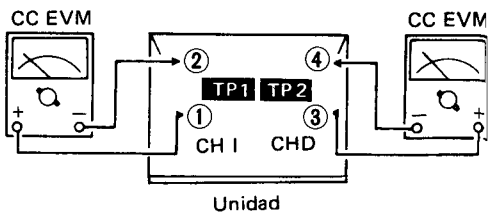
■ MEDICIONES Y AJUSTE

Posiciones de control y equipo usádo

- Perilla de volumen . . . . . ∞
- Selector de altavoz principal . . . . . off (desconectado)
- Selector de altavoz remoto . . . . . off
- Selector de impedancia de altavoces . . . . 8Ω ~ 16Ω
- Voltímetro electrónico de CC (EVM)

AJUSTE DE MARCHA EN VACÍO (ICQ)

1. Hacer la conexión como se muestra. (Conectar el voltímetro de CC en ambos canales.)
2. Girar el volumen de control ICQ (**VR401, VR402**) a la izquierda.
3. Prender el aparato cuando está frío y, 15 seg. más tarde, ajustar **VR401** y **VR402** de manera que el voltaje sea **20mV**. También, comprobar que el voltaje sea **38 – 47mV** (estandard: **40mV**) después de un lapso de **10 – 15** minutos. (Inferior a **50mV** después de un lapso de **60** min.)



Printed in Japan
8603060000 Y.Y